

Tabellen INEK voortgangsrapportage 2023

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Toelichting (kleur)codering

N/A	niet van toepassing
To be filled in by MS	in te vullen door lidstaten
Pre-filling	wordt ingevuld door de Europese Commissie
Post-filling	wordt na 15 maart ingevuld door de Europese Commissie
Automatically calculated	wordt automatisch berekend

verplichting om in te vullen

Mandatory (M)

Mandatory if applicable (Miap)

Mandatory if available (Miav)

Voluntary (V)

jaartallen

X-3	2020
X-2	2021
X-1	2022
t	2025
t+5	2030
t+10	2035

Annex I Table 1:
Current and projected national progress towards the national greenhouse gas (GHG) emissions reduction targets in view of climate-neutrality

Reporting element	ID ⁽¹⁾	Specification	Scope ⁽²⁾	Unit	GWP ⁽³⁾	Year					Target year for climate neutrality	Indirect CO ₂ -emissions included (yes/no)? ⁽¹¹⁾
						X-3 ⁽¹⁰⁾	X-2	2030	2040	2050		
Climate-neutrality ⁽⁴⁾	A1	M _{iap}										
Role of removals ⁽⁵⁾	A2	M _{iap}		ktCO ₂ e	AR 5							
National GHG target – for 2030 and beyond, if available, and indicative milestones for 2040 and 2050.	B	M _{iap}	Total GHG emissions excluding LULUCF, excluding international aviation ⁽⁶⁾	ktCO ₂ e	AR 5			112827		11061		Yes
	C	M _{iap}	Total GHG emissions including LULUCF, excluding international aviation ⁽⁶⁾	ktCO ₂ e	AR 5							<please select>
	D	M _{iap}	Total GHG including LULUCF, including international aviation ⁽⁶⁾	ktCO ₂ e	AR 5							<please select>
Historic emissions	E	M _{iap}	Total GHG emissions excluding LULUCF, excluding international aviation ⁽⁷⁾	ktCO ₂ e	AR 5							
	F	M _{iap}	Total GHG emissions including LULUCF, excluding international aviation ⁽⁷⁾	ktCO ₂ e	AR 5							
	G	M _{iap}	Total GHG emissions including LULUCF, including international aviation ⁽⁷⁾	ktCO ₂ e	AR 5							
Article 18 WEM scenario	H	M _{iap}	Total GHG emissions excluding LULUCF, excluding international aviation ⁽⁸⁾	ktCO ₂ e	AR 5							
	I	M _{iap}	Total GHG emissions including LULUCF, excluding international aviation ⁽⁸⁾	ktCO ₂ e	AR 5							
	J	M _{iap}	Total GHG emissions including LULUCF, including international aviation ⁽⁸⁾	ktCO ₂ e	AR 5							
	K	M _{iav}	Total GHG emissions excluding LULUCF, excluding international aviation ⁽⁸⁾	ktCO ₂ e	AR 5							

Article 18 WAM scenario	L	M _{iaav}	Total GHG emissions including LULUCF, excluding international aviation ⁽⁸⁾	ktCO ₂ e	AR 5							
	M	M _{iaav}	Total GHG emissions including LULUCF, including international aviation ⁽⁸⁾	ktCO ₂ e	AR 5							
Current progress (X-3): Difference between historical data and values in line with national GHG target path	N1	n/a	Total GHG emissions excluding LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	O1	n/a	Total GHG emissions including LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	P1	n/a	Total GHG emissions including LULUCF, including international aviation	Percent ⁽⁹⁾	AR 5							
Current progress (X-2): Difference between historical data and values in line with national GHG target path	N2	n/a	Total GHG emissions excluding LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	O2	n/a	Total GHG emissions including LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	P2	n/a	Total GHG emissions including LULUCF, including international aviation	Percent ⁽⁹⁾	AR 5							
Projected progress: Difference between WEM scenario and values in line with national GHG target path	Q	n/a	Total GHG emissions excluding LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	R	n/a	Total GHG emissions including LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	S	n/a	Total GHG emissions including LULUCF, including international aviation	Percent ⁽⁹⁾	AR 5							
Projected progress: Difference between WAM scenario and values in line with national GHG target path	T	n/a	Total GHG emissions excluding LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	U	n/a	Total GHG emissions including LULUCF, excluding international aviation	Percent ⁽⁹⁾	AR 5							
	V	n/a	Total GHG emissions including LULUCF, including international aviation	Percent ⁽⁹⁾	AR 5							

Notation : X = reporting year; Miap = mandatory if applicable; Miaav = mandatory if available.

Notes :

⁽¹⁾ IDs are shown to demonstrate how progress is calculated – the calculations using these IDs are listed in table note (7).

⁽²⁾ Data only to be supplied in those lines which apply to Member States target scope. Report data in line with GHG inventory. The totals reported for this column should include indirect CO₂-emissions if these are reported in the GHG in

⁽³⁾ Information according to which Global Warming Potential values the GHG emissions shall be reported. GHG inventory data: the Global Warming Potential applies that applies to GHG inventories in the same year. AR 5 = Global

⁽⁴⁾ If national climate-neutrality objective is in place, targeted year for climate-neutrality.

⁽⁵⁾ If national total GHG emissions target for 2030, 2040 or 2050 is in place, total estimated removals for the target year respectively. If national climate-neutrality objective is in place, total estimated removals for the target year of

⁽⁶⁾ Provided by the Member State according to information in current integrated national energy and climate plan (as in Annex I, Part 1, Section 2, point 2.1.1(ii). Objectives and targets consistent with the Paris Agreement and the

⁽⁷⁾ Final total GHG emissions as submitted by the Member States in their final GHG inventory information under Article 26(3) of Regulation (EU) 2018/1999 in the same reporting year and reported in line with GHG inventory guidelines

⁽⁸⁾ Final data from Member States submissions in the same reporting year according to Annex XXV to Commission Implementing Regulation (EU) 2020/1208 for reporting under Article 18(1), point (b) of Regulation (EU) 2018/1999.

⁽⁹⁾ Values are automatically calculated as percent difference to the given target. Only automatically calculated for those reporting elements where the corresponding row in block with IDs B-D was completed. If no automatic

$N1 = (B-E) / B$ - using data from X-3 for E

$N2 = (B-E) / B$ - using data from X-2 for E

$O1 = (C-F) / C$ - using data from X-3 for F

$O2 = (C-F) / C$ - using data from X-2 for F

$P1 = (D-G) / D$ - using data from X-3 for G

$P1 = (D-G) / D$ - using data from X-2 for G

$Q = (B-H) / B$

$R = (C-I) / C$

$S = (D-J) / D$

$T = (B-K) / B$

$U = (C-L) / C$

$V = (D-M) / D$

⁽¹⁰⁾ X-3 shall not apply for the first progress reports in 2023.

⁽¹¹⁾ Indicates with yes/no whether indirect CO₂-emissions are included in the target figure.

Annex I Table 2:

Current and projected progress towards the annual binding national limits pursuant to Regulation (EU) 2018/842 as reported pursuant to Article 26(3) and Article 18(1), point(b) of Regulation (EU) 2018/1999

Reporting element	ID	Specification	Unit	GWP ⁽¹⁾	Year				
					X-3 ⁽⁹⁾	X-2	t	t+5	t+10
Annual emission allocation (AEA) ⁽²⁾	A	M	ktCO ₂ e	AR 5					
Total Effort Sharing emissions in X-3 and X-2 ⁽³⁾	B	M	ktCO ₂ e	AR 5					
Total Effort Sharing emissions - WEM scenario ⁽⁴⁾	C	M	ktCO ₂ e	AR 5					
Total Effort Sharing emissions - WAM scenario ⁽⁴⁾	D	M _{iav}	ktCO ₂ e	AR 5					
Total Effort Sharing emissions - WOM scenario ⁽⁴⁾	E	M _{iav}	ktCO ₂ e	AR 5					
Current progress:									
Difference between AEA and reported total ESR emissions in X-3 and X-2 ⁽⁵⁾	F	n/a	ktCO ₂ e	AR 5					
Projected progress:									
Difference between AEA allocation and total ESR emissions in the WEM scenario ⁽⁶⁾	G	n/a	ktCO ₂ e	AR 5					
Projected progress: Difference between AEA and ESR emissions in the WAM scenario ⁽⁷⁾	H	n/a	ktCO ₂ e	AR 5					
Projected progress:									
Difference between AEA and total ESR emissions in the WOM scenario ⁽⁸⁾	I	n/a	ktCO ₂ e	AR 5					

Notation: X = reporting year; M= Mandatory; Miav = mandatory if available; t = the first future year ending with 0 or 5 immediately following the reporting year.

Notes:

⁽¹⁾ Information according to which Global Warming Potential values the GHG emissions shall be reported. GHG inventory data: the Global Warming Potential applies that applies to

⁽²⁾ Annual emission allocation pursuant to Article 4(3) of Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas

⁽³⁾ Final total GHG emissions as submitted by the Member States in their final GHG inventory information of the same reporting year according to the formula as laid out in Annex XV

⁽⁴⁾ Final data from Member States submissions in the same reporting year according to Annex XXV to Implementing Regulation (EU) 2020/1208 for reporting under Article 18(1), point

⁽⁵⁾ Calculated automatically as F = A-B

⁽⁶⁾ Calculated automatically as G = A-C

⁽⁷⁾ Calculated automatically as H = A-D and only if information is available in row with ID D, otherwise fill with notation key NA – not applicable.

⁽⁸⁾ Calculated automatically as I = A-E and only if information is available in row with ID E, otherwise fill with notation key NA – not applicable.

⁽⁹⁾ X-3 shall not apply for the first progress reports in 2023.

Annex I Table 3:

Current and projected progress towards commitments pursuant to Regulation (EU) 2018/841 of the European Parliament and of the Council as reported pursuant to Article 26(3) and Article 18(1), point (b) of Regulation (EU) 2018/1999

Reporting element	Reporting element	ID	Specification	Description	Unit	GWP ⁽¹⁾	Year				
							X-3 ⁽⁵⁾	X-2	t	t+5	t+10
Land Use, Land-Use Change and Forestry ⁽²⁾	Land Use, Land-Use Change and Forestry	A	M	LULUCF emissions in the Netherlands mostly stem from the drainage of peat and peaty soils (peat oxidation), while forests constitute the major net sink. Full details on the emissions per land use category can be found in the NIR ^(a) . A complete methodological description and background information of the Dutch national system for greenhouse gas reporting of the LULUCF sector can be found in the methodological report published by Wageningen University and Research ^(b) .	ktCO ₂ e	AR 5					
Land Use, Land-Use Change and Forestry in the WEM scenario ⁽³⁾	Land Use, Land-Use Change and Forestry in the WEM scenario	B	M	Emissions from LULUCF are expected to decline in the WEM scenario. The existing measures are aimed at reducing emissions from agricultural grasslands as well as increasing stored carbon through afforestation. An overview of emissions and projected emissions in the WEM scenario per land use category can be found in the Netherlands Climate and Energy Outlook report ^(c) . A description of LULUCF policies and measures as well as an explanation of the methodology used to determine the projections can also be found in this report.	ktCO ₂ e	AR 5					
Land Use, Land-Use Change and Forestry in the WAM scenario ⁽³⁾	Land Use, Land-Use Change and Forestry in the WAM scenario	C	M _{iaV}	Emissions from LULUCF in the WAM scenario will decline even further compared to the WEM scenario. The measures in the WAM scenario are focused on additional carbon sequestration through (new) forest areas, agricultural soils, and through regional measures reducing emissions from peatlands. An overview of the projected emissions in the WAM scenario, and a detailed description of the methodology behind the projections can be found in the Netherlands Climate and Energy Outlook report ^(d) .	ktCO ₂ e	AR 5					

LULUCF commitment stated in current NECP (4)	LULUCF commitment stated in current NECP	D	M _{iap}	<p>The LULUCF commitment stated in the current NECP is no net-debit between 2021-2030. The emissions in the current NECP were expected to increase between 2020 and 2030, as is shown in the numbers in the following columns, mostly due to an increase in the area of settlements.</p> <p>More recent projections, however, conclude that emissions from LULUCF will decrease between 2020 and 2030 as per the explanation in the WEM scenario. Thereby, the no net debit rule will be fulfilled. Measures and natural trends in the LULUCF sector have led to reductions in the sector of ±39% between 1990 and 2020.</p> <p>A full assessment of projections, policies, and measures, and how they relate to our commitments are described in the Netherlands Climate and Energy Outlook report ^(e) and the report by Arets et al. (2022) ^(f).</p>	ktCO ₂ e	AR 4	5300	n.a.	n.a.	5600	n.a.
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Notation: X = reporting year, t signifies the first future year ending with 0 or 5 immediately following the reporting year; M = mandatory; M_{iap} = mandatory if applicable; M_{iaV} = mandatory if available.

Notes:

- ⁽¹⁾ Information according to which Global Warming Potential values the GHG emissions shall be reported. GHG inventory data: the Global Warming Potential applies that applies to GHG inventories to in the same year. AR 5 = Global
- ⁽²⁾ Final total GHG emissions as submitted by the Member States in their final GHG inventory information under Article 26(3) of Regulation (EU) 2018/1999 in the same reporting year and reported in line with GHG inventory guidelines
- ⁽³⁾ Final data from Member States submissions in the same reporting year according to Annex XXV to Commission Implementing Regulation (EU) 2020/1208 for reporting under Article 18(1), point (b) of Regulation (EU) 2018/1999.
- ⁽⁴⁾ The individual national LULUCF commitment as stated in current integrated national energy and climate plan. Member States shall provide textual description in column "Description". Member States shall provide numerical data
- ⁽⁵⁾ X-3 shall not apply for the first progress reports in 2023.
- ^(a) Most recent figures can be found in Table 6.1 (p. 195) of the NIR 2022 (<https://unfccc.int/documents/461906>)
- ^(b) Report can be found at: WOt-technical report 217 (<https://edepot.wur.nl/566478>)
- ^(c) Most recent figures can be found in Figure 5.13 of the Netherlands Climate and Energy Outlook (Klimaat en Energieverkenning; KEV 2022) (<https://www.pbl.nl/sites/default/files/downloads/pbl-2022-klimaat-en-energieverkenning->
- ^(d) Most recent details can be found in Section 5.5.2 of the Netherlands Climate and Energy Outlook (Klimaat en Energieverkenning; KEV 2022) (<https://www.pbl.nl/sites/default/files/downloads/pbl-2022-klimaat-en->
- ^(e) Please see Section 5.5. of the Netherlands Climate and Energy Outlook (Klimaat en Energieverkenning; KEV 2022) (<https://www.pbl.nl/sites/default/files/downloads/pbl-2022-klimaat-en-energieverkenning-4838.pdf>)
- ^(f) Arets, E., S.A. van Baren, M.J. Schelhaas en J.P. Lesschen (2022), Raming van emissies van broeikasgassen en verwijderingen van CO2 door de LULUCF sector 2021-2040; Achtergronddocument bij de Klimaat- en Energieverkenning 2022. Wageningen, Wageningen Environmental Research. Can be found at: <https://edepot.wur.nl/579206>

Annex I Table 4:

Current and projected progress towards other national greenhouse-gas related targets and objectives set out in integrated national energy and climate plans, including sector targets in accordance with Article 4(a), point (1)(iii) of Regulation (EU)

National target / objective ⁽¹⁾	Specification	Reporting Element	Name of national target / objective	Sector(s) addressed	Description ⁽²⁾	Unit ⁽³⁾	GWP used ⁽⁴⁾	Year				
								X-3 ⁽⁵⁾	X-2	t	t+5	t+10
National target / objective #1 ⁽¹⁾	M _{iap}	Target/ objective	Climate Act: greenhouse gas reduction	All sectors except LULUCF and international aviation	In the Climate Act of 2019, the following long-term objective is set: 95% greenhouse gas reduction in 2050 compared to 1990, with an interim target of 49% greenhouse gas reduction in 2030.	kt CO2eq	AR 5				112827	
		Current progress							167656			
		Projected progress under WEM scenario								158037	120614	112809
		Projected progress under WAM scenario								158008	120313	111722
National target / objective #2 ⁽¹⁾	M _{iap}	Target/ objective	Climate Act: CO2-neutral electricity production in 2050	Electricity	In the Climate Act (2019), the following long-term objective is set: electricity production must be 100% CO2- neutral in 2050							
		Current progress							0,30			
		Projected progress under WEM scenario								0,19	0,06	0,05
		Projected progress under WAM scenario								0,19	0,07	0,06
National target / objective #3 ⁽¹⁾	M _{iap}	Target/ objective										
		Current progress										
		Projected progress under WEM scenario										
		Projected progress under WAM scenario										

Notation: X = reporting year; M_{iap} = mandatory if applicable; M_{iov} = mandatory if available; t = the first future year ending with 0 or 5 immediately following the reporting year.

Notes:

⁽¹⁾ Member States shall add further rows in case other national targets / objectives apply.

⁽²⁾ Textual description to be provided for clarification and in case targets / objectives and progress towards these cannot be expressed using the quantitative columns.

⁽³⁾ Unit comparable to the unit of projected progress data.

⁽⁴⁾ Information according to which Global Warming Potential values the GHG emissions were calculated. AR 4 = Global Warming Potential values from the IPCC's 4th Assessment Report; AR 5 = Global Warming Potential Values from the IPCC's 5th Assessment

⁽⁵⁾ X-3 shall not apply for the first progress reports in 2023.

Annex II Table 1:
Sectoral (electricity, heating and cooling, and transport) and overall shares of energy from renewable sources (1)

Reporting element	Specification	Unit	Year	
			X-3	X-2
Gross final consumption of energy from renewable sources	M	ktoe		
Gross final consumption of energy with aviation adjustment	M	ktoe		
Overall RES share	M	%		
Renewable electricity generation (with normalisation)	M	GWh		
Total Gross Electricity Consumption	M	GWh		
RES-E generation share	M	%		
RES-T numerator with multipliers	M	ktoe		
RES-T denominator with multipliers	M	ktoe		
RES-T consumption share	M	%		
RES-H&C numerator	M	ktoe		
RES-H&C denominator	M	ktoe		
- Of which waste heat and cold utilised through district heating/cooling networks	M	ktoe		
RES -H&C share	M	%		
RES-H&C share with waste heat and cold	M	%		
Energy from renewable sources and from waste heat and cold used in district heating and cooling	M(2)	ktoe		
Energy from all sources used for district heating and cooling	M(2)	ktoe		
Share of energy from renewable sources and from waste heat and cold in district heating and cooling	M(2)	%		
Statistical transfers / Joint projects /joint support schemes – total amount to be added	M(2)	ktoe		
Statistical transfers / Joint projects /joint support schemes – total amount to be added – total amount to be deducted	M	ktoe		
Indigenous renewable hydrogen production	V	ktoe		
Indigenous biogas production	V	ktoe		
In case one or more of the RES shares in X-3 or X-2 have fallen below the national trajectory as reported in the integrated national energy and climate plan, or the baseline share of 2020, explain the reasons for this development and information on additional measures that are planned in order to cover the gap compared to the national reference point.	Miap		<p>In 2020, the baseline share of 14% was achieved because of a statistical transfer with Denmark. In 2021, the RES share has fallen below the baseline share. In 2019, The Netherlands has announced additional measures to increase its share of renewable energy, including an additional round for the SDE++ in 2020, and an increased budget for the ISDE. In addition, in the past year plans were made for additional offshore windfarms and a Climate Fund of more than 10 billion euros has been initiated for the scaling up of innovative technologies for renewable energy and CO2 reduction in the coming years from 2024 to 2030. It is expected that in 2030, the share of renewable energy will be 31% (27-33%) which is above the current target of 27% in 2030.</p>	

Please provide information on whether the MS intends to use waste heat and waste cold for the purposes of fulfilling the H&C target (Article 23) and DH&C targets (Article 24) of REDII (pursuant to Article 23(1) of REDII) and accordingly whether the MS plans to apply target 1.1 ppt (pure RES) or 1.3 (RES + waste heat/cold).	Miap	The Netherlands intends to use the waste heat and cold for the purposes of article 23 and 24 and will apply the target of 1.3 (RES + waste heat/cold).
In case the average annual increase is lower than the H&C target in Article 23 of REDII, please state the achieved level and provide reasons, including of choice of measures (pursuant to the second and third sub-paragraphs of Article 23(2) of REDII)	Miap	The RES H&C share is below the trajectory of 1.3 %-points per year. The non-binding top-up is currently 0.4%-points per year and will be 0.4 %-points between 2020 and 2030. The share of renewable H&C of 8% in 2021 is expected to increase to 14% in 2030. However, with the policy plans from the new coalition agreement (blending obligation for biomethane and stimulation of heat pumps, combined with policy for energy efficiency) the increase can be accelerated.

Notes

X = reporting year

(1) All calculation provisions set out in Directive 2009/28/EC are applied to the total numerator and the total denominator

(2) These values have to be reported starting at reference year 2021.

Annex II Table 2:

Total installed capacity from each renewable energy technology⁽¹⁾

Renewable energy technology	Specification	Unit	Year	
			X-3	X-2
Hydro	M	MW		
Of which pure hydro power with no pumping	M	MW		
Of which mixed hydro power	M	MW		
Of which pumped hydro power	M	MW		
Geothermal	M	MW		
Solar	M	MW		
Of which photovoltaic	M	MW		
Of which photovoltaic < 30 kW	M ⁽⁵⁾	MW		
Of which rooftop	M ⁽⁵⁾	MW		
Of which off grid	M ⁽⁵⁾	MW		
Of which photovoltaic 30 kW - 1000 kW	M ⁽⁵⁾	MW		
Of which rooftop	M ⁽⁵⁾	MW		
Of which off grid	M ⁽⁵⁾	MW		
Of which photovoltaic ≥ 1 MW	M ⁽⁵⁾	MW		
Of which rooftop	M ⁽⁵⁾	MW		
Of which off grid	M ⁽⁵⁾	MW		
Of which concentrated solar power	M	MW		
Tide, wave, ocean	M	MW		
Wind	M	MW		
Of which onshore	M	MW		
Of which offshore	M	MW		
Biomass ^{(2) (3)}	M	MW		
Of which solid biomass fuels ⁽⁴⁾	M	MW		
Of which bioliquids	M	MW		
Of which gaseous biomass fuels ⁽⁴⁾	M	MW		
Solar collectors surface	M	1000 m ²		
Liquid biofuels plants capacity	M	1000 tonnes		
Of which biogasoline	M	1000 tonnes		
Of which biodiesels	M	1000 tonnes		
Of which bio jet kerosene	M	1000 tonnes		
Of which other liquid biofuels	M	1000 tonnes		
Relevant information, in case the evolution of installed capacity has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030.	M	<p>The installed capacity of solar PV has greatly increased in 2020 and 2021 and is expected to increase further between 2022 and 2030. Installed capacity of onshore wind has also increased. Offshore wind capacity has not shown significant changes, but deployment of offshore wind is characterized by stepwise increases and is expected to increase sharply in the coming years and between 2022 and 2030. It is expected that in 2030, 76% of electricity generation is renewable. This is about in line with the NECP renewable electricity target of 120 TWh.</p> <p>Because of a subsidy stop for low-temperature heat from biomass, the contribution of woody biomass in heat production will be limited (8 PJ in 2030).</p> <p>Up to now the majority of biodiesel production, approximately 70%, is destined for export. In addition to biodiesel, biogasoline (ethanol) is also produced on a limited scale in the Netherlands. So far, for biodiesel a slight increase in installed capacity is expected up to 2030. Biokerosene is not yet being produced, but refineries have been announced that they will produce biokerosene in the coming years.</p>		

Notation: X = reporting year

Notes:

(1) Categories to be reported in this table are based on the annual energy questionnaires on Renewables and Wastes from Eurostat, according to

(2) As defined in Directive (EU) 2018/2001: 'biomass' means the biodegradable fraction of products, waste and residues from biological origin

(3) In case of blended solid or gaseous biomass fuels or bioliquids only the capacity corresponding to the bio part should be taken into account. If

(4) As defined in Directive (EU) 2018/2001 Article 2 Definitions (27) 'biomass fuels' means gaseous and solid fuels produced from biomass.

(5) These values have to be reported starting at reference year 2022.

Annex II Table 3:

Total actual contribution (gross electricity generation) from each renewable energy technology in electricity

Renewable energy technology	Specification	Unit	Year	
			X -3	X -2
Normalised hydro generation	M	GWh		
Of which normalised pure hydro power with no pumping	M	GWh		
Of which normalised mixed hydro power (only no pumping part)	M	GWh		
Normalised wind generation	M	GWh		
Of which normalised on-shore wind generation	M ⁽¹⁾	GWh		
Of which normalised off-shore wind generation	M ⁽¹⁾	GWh		
From pure bioliquids, compliant + non-compliant	M	GWh		
of which from compliant pure (non-blended) bioliquids	M	GWh		
of which not from food and feed crops	M ⁽¹⁾	GWh		
of which from food and feed crops	M ⁽¹⁾	GWh		
of which from NON high-ILUC risk	M ⁽¹⁾	GWh		
From compliant blended bioliquids, only bio part	M	GWh		
of which not from food and feed crops	M ⁽¹⁾	GWh		
of which from food and feed crops	M ⁽¹⁾	GWh		
of which from NON high-ILUC risk	M ⁽¹⁾	GWh		
From biogas blended in the grid	M	GWh		
Of which compliant	M ⁽¹⁾	GWh		
From biogas accounted towards electricity based on certificates	M ⁽¹⁾	GWh		
Geothermal	M	GWh		
Solar photovoltaic	M	GWh		
Of which photovoltaic < 30 kW	M ⁽²⁾	GWh		
Of which rooftop	M ⁽²⁾	GWh		
Of which off grid	M ⁽²⁾	GWh		
Of which photovoltaic 30 kW - 1000 kW	M ⁽²⁾	GWh		
Of which rooftop	M ⁽²⁾	GWh		
Of which off grid	M ⁽²⁾	GWh		
Of which photovoltaic ≥ 1 MW	M ⁽²⁾	GWh		
Of which rooftop	M ⁽²⁾	GWh		
Of which off grid	M ⁽²⁾	GWh		
Solar thermal	M	GWh		
Tide, wave and ocean	M	GWh		
Municipal waste (renewable)	M	GWh		
Solid biofuels	M	GWh		
Of which compliant	M ⁽¹⁾	GWh		
From pure biogas	M	GWh		
Of which compliant	M ⁽¹⁾	GWh		
Relevant information, in case the evolution of gross electricity generation has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030.	M	Gross electricity generation is expected to be in line with the overall trajectory. It is expected that in 2030, 76% of electricity generation is renewable. This is about in line with the NECP renewable electricity target of 120 TWh for 55% CO2 reduction.		

Notation: X = reporting year

(1) These values have to be reported starting at reference year 2021.

(2) These values have to be reported starting at reference year 2022.

Annex II Table 4:

Total actual contribution (gross final energy consumption) from each renewable energy technology in heating and cooling⁽¹⁾

Renewable energy technology	Specification	Unit	Year	
			X -3	X -2
Final Energy Consumption of renewable sources and fuels in Industry and Other Sectors (households, commercial and public services, agriculture and forestry, fishing and not elsewhere specified) excluding transport	M	ktoe		
Charcoal	M	ktoe		
Pure biogas	M	ktoe		
Biogas blended in the grid	M	ktoe		
Of which compliant	M ⁽¹⁾	ktoe		
Biogas accounted towards FEC in industry and other sectors based on certificates	M ⁽¹⁾	ktoe		
Geothermal (excluding geothermal heat pumps)	M	ktoe		
Solar thermal	M	ktoe		
Municipal waste renewable	M	ktoe		
Solid biofuels excluding charcoal	M	ktoe		
Of which compliant	M ⁽¹⁾	ktoe		
all bioliquids, compliant and also non-compliant	M	ktoe		
of which only compliant bioliquids	M	ktoe		
of which not from food and feed crops	M ⁽¹⁾	ktoe		
of which from food and feed crops	M ⁽¹⁾	ktoe		
of which from NON high-ILUC risk	M ⁽¹⁾	ktoe		
Production of heat from renewable fuels	M	ktoe		
Geothermal energy (excluding geothermal heat pumps)	M	ktoe		
Solar thermal	M	ktoe		
Municipal Waste - Renewable	M	ktoe		
Solid biofuels	M	ktoe		
Of which compliant	M ⁽¹⁾	ktoe		
From pure biogas	M	ktoe		
Of which compliant	M ⁽¹⁾	ktoe		
From biogas blended in the grid	M	ktoe		
Of which compliant	M ⁽¹⁾	ktoe		

From biogas accounted towards heat production based on certificates	M	ktoe		
all pure bioliquids, compliant and also non-compliant	M	ktoe		
of which only compliant pure bioliquids	M	ktoe		
of which not from food and feed crops	M ⁽¹⁾	ktoe		
of which from food and feed crops	M ⁽¹⁾	ktoe		
of which from NON high-ILUC risk	M ⁽¹⁾	ktoe		
blended bioliquids, compliant , only bio- part	M	ktoe		
of which not from food and feed crops	M ⁽¹⁾	ktoe		
of which from food and feed crops	M ⁽¹⁾	ktoe		
of which from NON high-ILUC risk	M ⁽¹⁾	ktoe		
From hydrogen of renewable origin	M ⁽¹⁾	ktoe		
From RFNBOs	M ⁽¹⁾	ktoe		
Ambient heat (captured by heat pumps, with the exception of geothermal heat pumps)	M	ktoe		
Of which air-air	M	ktoe		
Of which air-water	M	ktoe		
Of which air-air reversible	M	ktoe		
Of which air-water reversible	M	ktoe		
Of which exhaust air-air	M	ktoe		
Of which exhaust air-water	M	ktoe		
Of which water-air	M	ktoe		
Of which water-water	M	ktoe		
Geothermal energy using heat pumps	M	ktoe		
Of which ground-air	M	ktoe		
Of which ground-water	M	ktoe		
Renewable cooling	M ⁽¹⁾	ktoe		
Of which individual cooling systems above 1.5 MW capacity	M ⁽¹⁾	ktoe		
Of which from renewable heat driven cooling (absorption and adsorption)	M ⁽¹⁾	ktoe		
Of which Individual cooling systems below 1.5 MW capacity	M ⁽¹⁾	ktoe		
Space cooling in residential sector	M ⁽¹⁾	ktoe		
Of which from renewable heat driven cooling (absorption and adsorption)	M ⁽¹⁾	ktoe		
Space cooling in the tertiary sector	M ⁽¹⁾	ktoe		
Of which from renewable heat driven cooling (absorption and adsorption)	M ⁽¹⁾	ktoe		

Process cooling	M ⁽¹⁾	ktoe		
Of which from renewable heat driven cooling (absorption and adsorption)	M ⁽¹⁾	ktoe		
Other individual cooling systems	M ⁽¹⁾	ktoe		
Of which from renewable heat driven cooling (absorption and adsorption)	M ⁽¹⁾	ktoe		
District cooling	M ⁽¹⁾	ktoe		
Of which from renewable heat driven cooling (absorption and adsorption)	M ⁽¹⁾	ktoe		
Relevant information, in case the evolution of final energy consumption for heating and cooling has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030.	M	The increase in the final energy consumption for heating and cooling is expected to be on the projected trajectory.		

Notation: X = reporting year

(1) These values have to be reported starting at reference year 2021.

Annex II Table 5:

Total actual contribution (gross final energy consumption) from each renewable energy technology in the transport sector

Renewable energy technology	Hidden column - Names for Reportnet	Specification	Volumes			Greenhouse saving performance		
			Unit	X -3	X -2	Unit ⁽²⁾	X-3	X-2
Biofuels in transport ⁽¹⁾								
Liquid biofuels in road transport	Liquid biofuels in road transport	M	ktoe					
Liquid biofuels in rail transport	Liquid biofuels in rail transport	M	ktoe					
Liquid biofuels in other modes	Liquid biofuels in other modes	M	ktoe					
Gaseous biofuels in road transport	Gaseous biofuels in road transport	M	ktoe					
Gaseous biofuels in rail transport	Gaseous biofuels in rail transport	M	ktoe					
Gaseous biofuels in other modes	Gaseous biofuels in other modes	M	ktoe					
Non-biomass fuels that can be counted towards transport								
Hydrogen of renewable origin	Hydrogen of renewable origin	M	ktoe					
Of which in Art 27.2(c) – in maritime sector	Hydrogen - Of which in Art 27.2(c) – in maritime sector	M ⁽⁵⁾	ktoe					
Of which in Art 27.2(c) – in aviation sector	Hydrogen - Of which in Art 27.2(c) – in aviation sector	M ⁽⁵⁾	ktoe					
Renewable fuels of non-biological origin (RFNBOs)	Renewable fuels of non-biological origin (RFNBOs)	M	ktoe					
Of which in Art 27.2(c) – in maritime sector	RFNBOs - Of which in Art 27.2(c) – in maritime sector	M ⁽⁵⁾	ktoe					
Of which in Art 27.2(c) – in aviation sector	RFNBOs - Of which in Art 27.2(c) – in aviation sector	M ⁽⁵⁾	ktoe					
Recycled carbon fuels	Recycled carbon fuels	M	ktoe					
Of which in Art 27.2(c) – in maritime sector	Recycled carbon fuels - Of which in Art 27.2(c) – in maritime sector	M ⁽⁵⁾	ktoe					
Of which in Art 27.2(c) – in aviation sector	Recycled carbon fuels - Of which in Art 27.2(c) – in aviation sector	M ⁽⁵⁾	ktoe					
COMPLIANT biofuels in transport ⁽²⁾								
all compliant biofuels in all transport modes	all compliant biofuels in all transport modes	M	ktoe			%	82	85
Annex IX (all transport modes)	Annex IX (all transport modes)	M	ktoe					
Of which Art. 27.2(c) - in maritime sector	Annex IX - Of which Art. 27.2(c) - in maritime sector	M ⁽⁵⁾	ktoe					
Of which Art. 27.2(c) - in aviation sector	Annex IX - Of which Art. 27.2(c) - in aviation sector	M ⁽⁵⁾	ktoe					
By feedstock (all modes)								
Part A	Part A	M	ktoe					
Of which Part A in maritime sector (Art. 27.2c)	Of which Part A in maritime sector (Art. 27.2c)	M ⁽⁵⁾	ktoe					
Of which Part A in aviation sector (Art. 27.2c)	Of which Part A in aviation sector (Art. 27.2c)	M ⁽⁵⁾	ktoe					
Part A by feedstock (all modes)								
(a)	Part A - (a)	M	ktoe					
(b)	Part A - (b)	M	ktoe					
(c)	Part A - (c)	M	ktoe					
(d)	Part A - (d)	M	ktoe					
(e)	Part A - (e)	M	ktoe					
(f)	Part A - (f)	M	ktoe					
(g)	Part A - (g)	M	ktoe					
(h)	Part A - (h)	M	ktoe					
(i)	Part A - (i)	M	ktoe					
(j)	Part A - (j)	M	ktoe					
(k)	Part A - (k)	M	ktoe					
(l)	Part A - (l)	M	ktoe					
(m)	Part A - (m)	M	ktoe					
(n)	Part A - (n)	M	ktoe					
(o)	Part A - (o)	M	ktoe					
(p)	Part A - (p)	M	ktoe					
(q)	Part A - (q)	M	ktoe					

Part B	Part B	M	ktoe					
Of which Part B in maritime sector (Art. 27.2c)	Of which Part B in maritime sector (Art. 27.2c)	M ⁽⁵⁾	ktoe					
Of which Part B in aviation sector (Art. 27.2c)	Of which Part B in aviation sector (Art. 27.2c)	M ⁽⁵⁾	ktoe					
Part B by feedstock (all modes)		M	ktoe					
(a)	Part B - (a)	M	ktoe					
(b)	Part B - (b)	M	ktoe					
Article 26(1) - From food and feed crops	Article 26(1) - From food and feed crops	M	ktoe					
of which from NON high ILUC risk	Article 26(1) - of which from NON high ILUC risk	M ⁽⁵⁾	ktoe					
Other compliant biofuels	Other compliant biofuels	M	ktoe					
Of which in maritime sector (Art. 27.2c)	Other compliant - Of which in maritime sector (Art. 27.2c)	M ⁽⁵⁾	ktoe					
Of which in aviation sector (Art. 27.2c)	Other compliant - Of which in aviation sector (Art. 27.2c)	M ⁽⁵⁾	ktoe					
Renewable electricity in the grid used in the transport sector								
All electricity in transport	All electricity in transport	M	ktoe					
All electricity in road transport	All electricity in road transport	M	ktoe					
RE in road transport	RE in road transport	M	ktoe					
non-RE in road transport	non-RE in road transport	M	ktoe					
All electricity in rail transport	All electricity in rail transport	M	ktoe					
RE in rail transport	RE in rail transport	M	ktoe					
non-RE in rail transport	non-RE in rail transport	M	ktoe					
All electricity in all other transport modes	All electricity in all other transport modes	M	ktoe					
RE in all other transport modes	RE in all other transport modes	M	ktoe					
non-RE in all other transport modes	non-RE in all other transport modes	M	ktoe					
Relevant information, in case the evolution of final energy consumption for transport has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030.	Relevant information, in case the evolution of final energy consumption for transport has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030.	M		The evolution of final energy consumption for transport (2020-2021) could impact the trajectories for renewable energy from 2021 to 2030 depending on the pending unclarity on (present and future) accounting for international shipping. The use in international shipping is part of the national system for renewable energy in transport; international shipping is a relatively large transport sector in the Netherlands.				

Notation: X = reporting year

Notes:

⁽¹⁾ This includes all biofuels, compliant and non-compliant, pure biofuels and corresponding part of blended biofuels, other renewable fuels, hydrogen and synthetic fuels of renewable origin in transport

⁽²⁾ This includes only compliant biofuels and biomass fuels (Articles 29 & 30 of Directive (EU) 2018/2001), pure and corresponding renewable part of blended fuels used in transport

⁽³⁾ Greenhouse saving performance has to be reported for the total of sustainable biofuels. Data may be reported more detailed and, in that case, if information cannot be provided because of confidentiality, Member States to include "C" for the related category.

⁽⁴⁾ Specify the unit in which the greenhouse saving performance is expressed.

⁽⁵⁾ These values have to be reported starting at reference year 2021.

**Annex II Table 6:
Biomass supply for energy use**

Specification	X-3					X-2				
	Indigenous production	Imports	Exports	Stock changes	Average net calorific value	Indigenous production	Imports	Exports	Stock changes	Average net calorific value
	in 1000 m3 (1)	in 1000 m3 (1)	in 1000 m3 (1)	in 1000 m3 (1)	(TJ/1000 m3) (2)	in 1000 m3 (1)	in 1000 m3 (1)	in 1000 m3 (1)	in 1000 m3 (1)	(TJ/1000 m3) (2)
Specification	M ⁽⁶⁾	M ⁽⁶⁾	V	V	V	M	M	V	V	V
(1) Forest biomass used for energy production										
(a) Primary biomass from forest										
(i) Branches and tree tops	(3)	(3)				(3)	(3)			
(ii) Stumps	(4)	(4)				(4)	(4)			
(iii) Roundwood										
(I) Industrial roundwood										
(II) Fuelwood										
(b) Forest-based industry co-products										
(i) Bark										
(ii) Chips, sawdust and other wood particles										
(iii) Black liquor and crude tall oil (tonnes)										
(c) Post-consumer wood	(3)	(3)				(3)	(3)			
(d) Processed wood-based fuel, produced from feedstocks not accounted under point (1)(a), (b) or (c):										
(i) Wood charcoal										
(ii) Wood pellets and wood briquettes										
(2) Agricultural biomass	(3)	(3)				(3)	(3)			
(a) Energy crops for electricity or heat (including short rotation coppice)	(3)	(3)				(3)	(3)			
(i) Of which: From food and feed feedstocks	(3)	(3)				(3)	(3)			
(b) Agricultural crop residues for electricity or heat	(3)	(3)				(3)	(3)			
(3) Organic waste biomass	(3)	(3)				(3)	(3)			
(a) Organic fraction of industrial waste	(3)	(3)				(3)	(3)			
(b) Organic fraction of municipal waste	(3)	(3)				(3)	(3)			
(c) Waste sludges	(3)	(3)				(3)	(3)			
For forest biomass: Description how these meet the land-use, land-use change and forestry (LULUCF) criteria of Article 29(7) of Directive (EU) 2018/2001 ⁽⁵⁾	The Netherlands has implemented the Directive (EU) 2018/2001 in legislation since 2019. Financially supported consumed forest biomass is in compliance with the Directive.									
Relevant information, in case the evolution on bioenergy supply has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030.	Relevant information, in case the evolution on bioenergy supply has an impact on the overall and sectoral trajectories for renewable energy from 2021 to 2030. Because of a subsidy stop for low-temperature heat from biomass, as of April 2022, the contribution of woody biomass in heat production will be limited (8 PJ in 2030).									

Notes:

(1) except 1b(iii) in tonne

(2) except 1b(iii) in TJ/tonne

(3) reporting mandatory if available

(4) reporting mandatory if applicable

(5) With per country or regional economic integration organisation of origin of the forest biomass, detailing whether the country or organisation is a Party to the Paris Agreement and: it has submitted a nationally determined contribution (NDC) that includes the LULUCF sector; it reports to the UNFCCC a national GHG emission inventory that includes the LULUCF sector or will start doing so by 2025 at the latest; or it has national or sub-national laws in place, in accordance with Article 5 of the Paris Agreement, applicable in the area of harvest, to conserve and enhance carbon stocks and sinks, and provides evidence that reported LULUCF-sector emissions do not exceed removals.

(6) These values have to be reported starting at reference year 2021.

**Annex II Table 7:
Other national trajectories and objectives**

Trajectory or objective	Description	Target ⁽¹⁾	Target year	Progress towards target/ objective	Progress Indicator (if applicable) ⁽²⁾			
					Name of indicator to monitor progress ⁽³⁾	Unit	X-3	X-2
M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}
Renewable energy use in district heating								
Renewable energy use in buildings								
Renewable energy produced by cities								
Renewable energy communities								
Renewables self-consumers								
Energy recovered from the sludge acquired through the treatment of wastewater								
Other national objective and trajectory, including sectoral and long term - 1								
Other national objective and trajectory, including sectoral and long term - 2								

Notation: X = reporting year.

Notes

(1) Can be quantitative or qualitative

(2) If the target/objective is quantifiable, Member States to provide an indication of progress, with the latest available information. Indicators for reporting are to be determined on the basis of national objectives or targets

(3) Member States to refer to a base year and value, as appropriate, if this aids in demonstrating progress.

Annex II Table 8

Assessment of the support for electricity from renewable sources pursuant to Article 6(4) of Directive (EU) 2018/2001

<p>When applicable, provide information on the assessment of the support for electricity from renewable sources that Member States are to carry out pursuant to Article 6(4) of Directive (EU) 2018/2001⁽¹⁾</p>	<p>When applicable, provide information on the assessment of the support for electricity from renewable sources that Member States are to carry out pursuant to Article 6(4) of Directive (EU) 2018/2001</p>	<p>M_{iap}</p>	<p>In 2021, the Netherlands has issued an evaluation of the SDE+ (2011-2021) (conducted by Trinomics)^(a). This research was specifically issued in the light of the obligation in Article 6(4) of the Renewable Energy Directive. In summary, it was concluded that the SDE+ has had a significant impact on the rise of renewable energy in The Netherlands and is cost effective. It was also concluded that the SDE+ did not do enough to stimulate renewable heating and that it held a risk of overstimulating.</p> <p>In addition, in 2022 the Netherlands has issued another research (conducted by Trinomics)^(b) regarding the support for renewable electricity, as it was agreed on that renewable electricity will not be supported by the SDE++ from 2025 onwards to prevent overstimulation. The conclusion of the Trinomics report was that some kind of support will be needed to provide sufficient investment certainty to keep the deployment of renewable electricity going. A follow-up research will be conducted concerning the question what type of support would be preferable. This follow-up research will be started in December 2022.</p> <p>The SDE++ (with the addition of CO2 reduction techniques next to renewable energy techniques) as a whole has not yet been evaluated and will be evaluated in 2023.</p>
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Notes:

(1) Member States to include references to concerned policies and measures

^(a) eindrapport-evaluatie-van-de-sde.pdf (overheid.nl)

^(b) rapport-trinomics-review-overgangsregeling-hernieuwbare-elektriciteit.pdf (overheid.nl)

Annex III Table 1

Adaptation goals in integrated national energy and climate plans

Adaptation goals in integrated national energy and climate plans	Specification	Response
Are adaptation goals in accordance with Article 4 included in the integrated national energy and climate plan? ⁽¹⁾	M	No
Will the next submission of the integrated national energy and climate plan include adaptation goals? ⁽¹⁾	V	No
If adaptation goals are included in the integrated national energy and climate plan or the planned submission of the integrated national energy and climate plan, please provide an overview of these goals.	V	
If available, please provide other documents containing adaptation goals relevant to meeting the objectives and targets of the Energy Union and the long-term Union greenhouse gas emissions commitments consistent with the Paris Agreement, including the date of adoption and a link to the document.	V	<p>- Delta Programme (2010) (https://english.deltaprogramma.nl/delta-programme/documents/publications/2022/09/20/delta-programme-2023-english---print-version)</p> <p>- National Climate Adaptation Strategy (2016) (https://klimaatadaptatienederland.nl/en/policy-programmes/nas/)</p>

Notes: M = mandatory; V = voluntary

⁽¹⁾ Member States to choose from the following options: Yes; No.

Annex III Table 2

Information on adaptation, which may affect delivery of Energy Union objectives and targets and the long-term Union GHG emission reduction commitments under the Paris Agreement

Information on adaptation which may affect delivery of Energy Union objectives and targets and the long-term Union GHG emission reduction commitments under the Paris Agreement	Dimension	Specification	Response
National circumstances			
1. Vulnerabilities, including adaptive capacities (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references), that are relevant to the Energy Union dimension selected.	Decarbonisation: GHG emissions and removals	M	Not available; however, the risk of potential future impacts are considered under question 2 (see below).
	Decarbonisation: renewable energy	Miap	Not available; however, the risk of potential future impacts are considered under question 2 (see below).
	Energy efficiency	Miap	Not available; however, the risk of potential future impacts are considered under question 2 (see below).
	Energy security	Miap	Not available; however, the risk of potential future impacts are considered under question 2 (see below).
	Internal energy market	Miap	Not available; however, the risk of potential future impacts are considered under question 2 (see below).
	Research, innovation and competitiveness	Miap	Not available; however, the risk of potential future impacts are considered under question 2 (see below).
1.(a) Where relevant and available, please provide information on vulnerabilities, including adaptive capacities, referred to in field 1 above, disaggregated by vulnerable group. ⁽¹⁾	Decarbonisation: GHG emissions and removals	V	No such disaggregation available.
	Decarbonisation: renewable energy	V	No such disaggregation available.
	Energy efficiency	V	No such disaggregation available.
	Energy security	V	No such disaggregation available.
	Internal energy market	V	No such disaggregation available.
	Research, innovation and competitiveness	V	No such disaggregation available.
	Decarbonisation: GHG emissions and removals	M	<p>Emissions from drying peat soils provides a clear example of the risk of potential future impacts regarding GHG emissions. To address this, a reduction of annual emissions from peat soils of 1 Mt by 2030 has been incorporated as one of the goals of the national Climate Agreement ('Klimaatakkoord'). At a regional level, steps are being taken to develop strategies towards reducing the emissions of GHG from peat soils and also preventing the resulting soil subsidence (several provinces have developed a so-called 'Regionale Veenweide Strategie').</p> <p>Risk of potential future impacts (general overview) - As described in more detail in the Article 19 Report, the Delta Programme (DP) and National Climate Adaptation Strategy (NAS, 2016) are at the centre of Dutch climate adaptation policy. The NAS describes the main climate risks facing the Netherlands and sets the course for addressing these risks. This follows a multi-sector approach and is not distinguished along the lines of the Energy Union dimensions.</p> <p>Likewise, under the Delta Programme the respective Delta Plans on Flood Risk, Fresh Water Supply and Spatial Adaptation consider future climate impacts and the necessary measures to make the Netherlands climate proof and water-resilient.</p> <p>The Royal Netherlands Meteorological Institute (KNMI) will publish new climate scenarios for the Netherlands in 2023, which will replace the 2014 scenarios (see: www.climatescenarios.nl). On the basis of these updated climate scenarios, the Netherlands Environmental Assessment Agency (PBL) will work with a consortium of national research institutions towards an update of the climate risks for the Netherlands based on the latest insights.</p>

2. Risk of potential future impacts (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references), that are relevant to the Energy Union dimension selected.	Decarbonisation: renewable energy	Miap	The vulnerability to climate change of future energy supply, which to a large degree will depend on renewable energy, is being explored by national institutes such as the KNMI, PBL and others (see for instance a 2019 study on: ‘The influence of weather regimes on European renewable energy production and demand’, https://doi.org/10.1088/1748-9326/ab38d3). Such studies attempt to improve understanding of the link between weather and energy systems, and how certain events can put stress on energy systems more reliant on wind and solar power production (e.g. energy shortfalls during lengthier periods of reduced production alongside higher demand).
	Energy efficiency	Miap	Not applicable.
	Energy security	Miap	Under the Delta Programme the respective Delta Plans on Flood Risk, Fresh Water Supply and Spatial Adaptation consider future climate impacts and the necessary measures to make the Netherlands climate proof and water-resilient. The Delta Decision Spatial Adaptation (2015) specifically set out a ‘national approach vital and vulnerable’ to make vital functions such as energy supply (electricity, gas, oil), telecom and ICT (public network and emergency communication), main road network, drinking water, retaining and managing surface water and nuclear installations more climate proof and water-resilient by 2050 (progress of this approach is reported annually: www.deltaprogramma.nl/documenten/publicaties/2021/09/21/dp2022-f-voortgangsrapportage-nationale-aanpak-vitaal-en-kwetsbaar-2020-2021)
	Internal energy market	Miap	Climate change increases the likelihood of power outages and a growing dependence on electricity increases the impact thereof (as described by the Netherlands Environmental Assessment Agency (PBL) in ‘Aanpassen aan klimaatverandering’, 2015). Electricity networks in Europe are becoming more interconnected which ensures more redundancy and flexibility; on the other hand, cascading failure of the electricity network abroad may also have greater impact on the Netherlands. Technological developments in areas such as storage and decentralized generation can help reduce such risks.
	Research, innovation and competitiveness	Miap	Not applicable.
Strategies and plans			
3. Adaptation goals (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references) that are relevant to the Energy Union dimension selected.	Decarbonisation: GHG emissions and removals	M	Dutch adaptation goals are not distinguished along the lines of the Energy Union dimensions. For information on the adaptation goals contained within the NAS and DP, see the Article 19 Report.
	Decarbonisation: renewable energy	Miap	Dutch adaptation goals are not distinguished along the lines of the Energy Union dimensions. For information on the adaptation goals contained within the NAS and DP, see the Article 19 Report.
	Energy efficiency	Miap	Dutch adaptation goals are not distinguished along the lines of the Energy Union dimensions. For information on the adaptation goals contained within the NAS and DP, see the Article 19 Report.
	Energy security	Miap	Dutch adaptation goals are not distinguished along the lines of the Energy Union dimensions. For information on the adaptation goals contained within the NAS and DP, see the Article 19 Report.
	Internal energy market	Miap	Dutch adaptation goals are not distinguished along the lines of the Energy Union dimensions. For information on the adaptation goals contained within the NAS and DP, see the Article 19 Report.
	Research, innovation and competitiveness	Miap	Dutch adaptation goals are not distinguished along the lines of the Energy Union dimensions. For information on the adaptation goals contained within the NAS and DP, see the Article 19 Report.
4. Challenges, gaps and barriers (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references) that are relevant to the Energy Union dimension selected.	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	
	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	
	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	

5. Foreseen actions, budget and timeline related to the adaptation goals identified in Field 3.	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	
6. Overview of the content of sub-national strategies, policies, plans and efforts related to the adaptation goals identified in Field 3.	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	
	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	
Monitoring and evaluation			
7. Progress towards reducing climate impacts, vulnerabilities and risks (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references), relevant to the Energy Union dimension selected.	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	
	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	
7(a). Where relevant and available, please provide information on progress towards reducing climate impacts, vulnerabilities and risks, referred to in field 7 above, disaggregated by vulnerable group. ⁽¹⁾	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	
	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	
8. Progress towards increasing adaptive capacity (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references), relevant to the Energy Union dimension selected.	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	
	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	
9. Progress of implementation towards meeting the	Decarbonisation: GHG emissions and removals	M	As no such adaptation goals are distinguished along the lines of the Energy Union dimensions, this precludes the possibility to report on the implementation thereof. For progress on the Dutch adaptation goals in general, please see the Article 19 report – part 4. ‘Monitoring and Evaluation of adaptation measures and -processes’ – which describes in more detail the progress under the Delta Programme and NAS. These are the main vehicles for the implementation of national adaptation policies.
	Decarbonisation: renewable energy	Miap	As no such adaptation goals are distinguished along the lines of the Energy Union dimensions, this precludes the possibility to report on the implementation thereof. For progress on the Dutch adaptation goals in general, please see the Article 19 report – part 4. ‘Monitoring and Evaluation of adaptation measures and -processes’ – which describes in more detail the progress under the Delta Programme and NAS. These are the main vehicles for the implementation of national adaptation policies.
	Energy efficiency	Miap	As no such adaptation goals are distinguished along the lines of the Energy Union dimensions, this precludes the possibility to report on the implementation thereof. For progress on the Dutch adaptation goals in general, please see the Article 19 report – part 4. ‘Monitoring and Evaluation of adaptation measures and -processes’ – which describes in more detail the progress under the Delta Programme and NAS. These are the main vehicles for the implementation of national adaptation policies.

adaptation goals identified in Field 3.	Energy security	Miap	As no such adaptation goals are distinguished along the lines of the Energy Union dimensions, this precludes the possibility to report on the implementation thereof. For progress on the Dutch adaptation goals in general, please see the Article 19 report – part 4. ‘Monitoring and Evaluation of adaptation measures and -processes’ – which describes in more detail the progress under the Delta Programme and NAS. These are the main vehicles for the implementation of national adaptation policies.
	Internal energy market	Miap	As no such adaptation goals are distinguished along the lines of the Energy Union dimensions, this precludes the possibility to report on the implementation thereof. For progress on the Dutch adaptation goals in general, please see the Article 19 report – part 4. ‘Monitoring and Evaluation of adaptation measures and -processes’ – which describes in more detail the progress under the Delta Programme and NAS. These are the main vehicles for the implementation of national adaptation policies.
	Research, innovation and competitiveness	Miap	As no such adaptation goals are distinguished along the lines of the Energy Union dimensions, this precludes the possibility to report on the implementation thereof. For progress on the Dutch adaptation goals in general, please see the Article 19 report – part 4. ‘Monitoring and Evaluation of adaptation measures and -processes’ – which describes in more detail the progress under the Delta Programme and NAS. These are the main vehicles for the implementation of national adaptation policies.
10. Progress towards addressing barriers (identified in the integrated national energy and climate plan and/or in other documents identified in Table 1 – please cite references) that are relevant to the Energy Union dimension selected.	Decarbonisation: GHG emissions and removals	V	
	Decarbonisation: renewable energy	V	
	Energy efficiency	V	
	Energy security	V	
	Internal energy market	V	
	Research, innovation and competitiveness	V	

Notes:

M = mandatory; M_{iap} = mandatory if applicable; V = voluntary

⁽¹⁾ Vulnerable group refers to a segment of the human population that has the propensity or predisposition to be adversely affected by climate variability and change.

Annex IV Table 1

National contribution and indicative trajectory for primary and final energy consumption

Reporting element	Specification	Unit	Indicator	
Definition of the 2030 savings contribution (1)	M	n/a	Final Energy Consumption	
Description of the 2030 contribution and indicative trajectory from 2021-2030	M	n/a	The Netherlands has opted to make its contribution based on primary energy consumption in 2030. The Netherlands aims to achieve primary energy consumption of 1,950 petajoules by 2030 (excluding use for non-energy purposes). In terms of final energy consumption, this contribution is translated into an expected final energy consumption of 1,837 petajoules by 2030.	
Value of the savings contribution 2030	M	Petajoules		
Translation into absolute level of PEC	M	ktoe	46575	
Translation into absolute level of FEC	M	ktoe	43876	
			X-3 ⁽⁴⁾	X-2
Progress towards indicative trajectory 2021-2030 in PEC (2)	M	ktoe		
Progress towards indicative trajectory 2021-2030 in FEC (2)	M	ktoe		
Baseline GDP level, if the contribution is set as an intensity target	Miap	Million-euro, chain-linked volumes ⁽³⁾	NA	NA
General comments on the national contribution and indicative trajectory for primary	V			

Notation: X = reporting year; M = mandatory; Miap = mandatory if applicable; V = voluntary

Notes:

(1) Member States shall select from the following options: primary energy consumption; final energy consumption; primary energy savings; final energy savings; energy intensity.

(2) PEC and FEC according to the Eurostat indicators of the complete energy balances [nrg_bal_c] – Primary and Final energy consumption (Europe 2020-2030). Please see the PEC and FEC definitions (as the monitoring indicators for the Directive on energy efficiency) in the most recent version of the Energy balance guide on the website of Eurostat (see chapter “Complementing indicators”).

(3) Reference year 2015 (at 2015 exchange rates).

(4) X-3 shall not apply for the first progress reports in 2023.

(5) Member States may provide additional explanation on the national contribution and indicative trajectory for primary and final energy consumption, including their underlying methodology.

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Annex IV Table 2												
2	Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – building stock												
3													
4		Number of buildings ^{(1)(a)}			Total floor area (m2) ^{(2)(b)}			Primary energy use of buildings (TJ) ⁽³⁾			Final energy use of buildings (TJ) ⁽³⁾		
5		2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2
6		Number of buildings 2020	Number of buildings X-3	Number of buildings X-2	Total floor area (m2) 2020	Total floor area (m2) X-3	Total floor area (m2) X-2	Primary energy use of buildings 2020	Primary energy use of buildings X-3	Primary energy use of buildings X-2	Final energy use of buildings 2020	Final energy use of buildings X-3	Final energy use of buildings X-2
7	Specification	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}	M _{lav}
8	Residential buildings	7892000	7892000	7966000	924753000	924753000	928996000	NA	NA	NA	406100	406100	414300
9	Of which worst performing buildings ⁽⁵⁾	1512000	1512000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	Non-Residential buildings ^(c)	1266000	1266000	1302000	592723000	592723000	590937000	NA	NA	NA	254900	254900	251000
11	Of which worst performing buildings	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	Public buildings ⁽⁶⁾	NA	NA	153000	NA	NA	102000000	NA	NA	NA	NA	NA	NA
13	Of which worst performing buildings	NA	NA	24000	NA	NA	20000000	NA	NA	NA	NA	NA	NA
14													
15	Notation: X = reporting year												
16	Notes:												
17	(1) Building' means a roofed construction having walls, for which energy is used to condition the indoor climate (Directive 2010/31/EU, Article 2(1)) whereas Annex I of the same directive defines, for the purpose of the calculation of energy performance of												
18	(2) Floor area used as reference size for the assessment of the energy performance of a building, calculated as the sum of the useful floor areas of the spaces within the building envelope specified for the energy performance assessment.												
19	(3) As considered in the energy performance calculation of buildings defined by Directive 2010/31/EU.												
20	(4) As presented in the national long-term renovation strategy. Other indicators could reflect the number of buildings and/or total floor area (m2) per energy performance class, per construction period, per building size, per climatic zone, the number of En												
21	(5) As defined in the national long-term renovation strategy. The COMMISSION RECOMMENDATION (EU) 2019/786 on building renovation provides examples to determine the worst-performing segments of the national building stock: (a) setting a specific												
22	(6) The COMMISSION RECOMMENDATION (EU) 2019/786 on building renovation, clarifies that Article 2a(1)(e) of Directive 2010/31/EU concerns all public buildings (and not just public bodies buildings' that are owned and occupied by central government),												
23													
24	(a) We use residence objects: A (part of a) building with one owner/user and one function. One building can have several residence objects such as an apartment block.												
25	(b) excluding building objects with a combined function (living and some other function) Source: Kadaster voor woningen. TNO voor u-bouw.												
26	(c) In this case, we only have figures from the services sector because these buildings are heated												

	O	P	Q	R	S	T	U	V	W
1									
2									
3									
4	Direct GHG emissions in buildings (tCO _{2e})			Total GHG emissions in buildings (tCO _{2e})			Other ⁽⁴⁾		
5	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2
6	Direct GHG emissions in buildings 2020	Direct GHG emissions in buildings X-3	Direct GHG emissions in buildings X-2	Total GHG emissions in buildings 2020	Total GHG emissions in buildings X-3	Total GHG emissions in buildings X-2	Other 2020	Other X-3	Other X-2
7	M _{iaV}	M _{iaV}	M _{iaV}	M _{iaV}	M _{iaV}	M _{iaV}	M _{iaV}	M _{iaV}	M _{iaV}
8	16500000	16500000	17000000	NA	NA	NA			
9	NA	NA	NA	NA	NA	NA			
10	6800000	6800000	6400000	NA	NA	NA			
11	NA	NA	NA	NA	NA	NA			
12	NA	NA	NA	NA	NA	NA			
13	NA	NA	NA	NA	NA	NA			
14									
15									
16									
17	<i>buildings, the following classification of categories: (a) single-family houses of different types; (b) apartment blocks; (c) offices; (d) educational buildings; (e) hospitals; (f)</i>								
18									
19									
20	<i>ergy Performance Certificates per building type and/or per energy performance class, an overview of the capacities in the construction, the share of heating system in the</i>								
21	<i>threshold, such as an energy performance category (e.g. below 'D'); (b) using a primary energy consumption figure (expressed in kWh/m2 per year); or even (c) targeting</i>								
22	<i>. Policies and actions under Article 2a(1)(e) of Directive 2010/31/EU should include, for example, buildings that are occupied (e.g. leased or rented) by local or regional</i>								
23									
24									
25									
26									

Annex IV Table 3

Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – renovation rates⁽¹⁾

		Number of buildings renovated		Total floor area r
		X-3	X-2	X-3
		Number of buildings renovated X-3	Number of buildings renovated X-2	Total floor area renovated (m2) X-3
Specification		M _{iav}	M _{iav}	M _{iav}
Residential buildings	Light	NA	NA	NA
	Medium	NA	NA	NA
	Deep	NA	NA	NA
	Total	NA	NA	NA
Residential buildings - worst performing	Light	NA	NA	NA
	Medium	NA	NA	NA
	Deep	NA	NA	NA
	Total	NA	NA	NA
Non-residential buildings	Light	NA	NA	NA
	Medium	NA	NA	NA
	Deep	NA	NA	NA
	Total	NA	NA	NA
Non-residential buildings - worst performing	Light	NA	NA	NA
	Medium	NA	NA	NA
	Deep	NA	NA	NA
	Total	NA	NA	NA
Public buildings ⁽⁴⁾	Light	NA	NA	NA
	Medium	NA	NA	NA
	Deep	NA	NA	NA
	Total	NA	NA	NA
Public buildings - worst performing	Light	NA	NA	NA
	Medium	NA	NA	NA
	Deep	NA	NA	NA
	Total	NA	NA	NA

Notation: X = reporting year

Notes:

(1) An energy renovation means the change of one or more building elements (building envelope and technical building systems according to EPBD Art. 2(9)), having the potential to sign

(2) Floor area used as reference size for the assessment of the energy performance of a building, calculated as the sum of the useful floor areas of the spaces within the building envelope

(3) Renovation rate refers to the cumulated affected building floor area [m²] of all buildings that underwent an energy renovation in calendar year X-3 or X-2, for different renovation depths. Renovation depths can be defined as “light” (3% ≤ x ≤ 30% savings), “medium” (30% < x ≤ 60% savings) and “deep” (a renovation which transforms a building or building unit (a) before : The total energy renovation rate is defined as the sum of all renovation rates of the covered depths.

The definition of nearly zero-energy buildings (NZEB) is according to official national NZEB definitions transposing Article 9 of Directive 2010/31/EU, following the framework definition in

(4) The COMMISSION RECOMMENDATION (EU) 2019/786 on building renovation, clarifies that Article 2a(1)(e) of Directive 2010/31/EU concerns all public buildings (and not just public b

(5) Deep renovation equivalent rate equalises/weights the renovation rates at deep renovation depth and can be calculated by the following formula: Equivalent deep renovation rate = , Renovation depths are the ratio between primary energy saved and total primary energy before renovation of the respective part of the stock.

renovated (m ²) ⁽²⁾	Renovation rate ⁽³⁾		Deep renovation equivalent rate ⁽⁵⁾	
	X-2	X-3	X-2	X-2
Total floor area renovated (m ²) X-2	Renovation rate X-3	Renovation rate X-2	Deep renovation equivalent rate X-3	Deep renovation equivalent rate X-2
M _{iaav}	M _{iaav}	M _{iaav}	V	V
NA	NA	NA		
NA	NA	NA		
NA	NA	NA		
NA			NA	NA
NA	NA	NA		
NA	NA	NA		
NA	NA	NA		
NA			NA	NA
NA	NA	NA		
NA	NA	NA		
NA	NA	NA		
NA			NA	NA
NA	NA	NA		
NA	NA	NA		
NA	NA	NA		
NA			NA	NA
NA	NA	NA		
NA	NA	NA		
NA	NA	NA		
NA			NA	NA
NA	NA	NA		
NA	NA	NA		
NA	NA	NA		
NA			NA	NA

significantly affect the calculated or metered amount of energy needed to meet the energy demand associated with a typical use of the building, which includes, inter alia, the energy specified for the energy performance assessment.

depths, divided by the total floor area [m²] of the building stock in the same period.

(a) as of 1 January 2030, into a nearly zero-energy building (b) as of 1 January 2030, into a zero-emission building).

Article 2 of Directive 2010/31/EU: “Nearly zero-energy building means a building that has a very high energy performance, as determined in accordance with Annex I. The following buildings’ that are owned and occupied by central government). Policies and actions under Article 2a(1)(e) of Directive 2010/31/EU should include, for example, [(light renovation depth)*(light renovation rate) + (medium renovation depth)*(medium renovation rate) + (deep renovation depth)*(deep renovation rate)] / (deep

Annex IV Table 4

Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – other indicators

Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings	Description	Target ⁽¹⁾	Target year	Progress towards target/ objective	Progress Indicator (if applicable) ⁽²⁾			
					Name of indicator to monitor progress ⁽³⁾	Unit	X-3	X-2
							M _{iap}	M _{iap}
M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}
Milestone / progress indicator 1	Insulating 2,5 million houses with a focus on fasing out the lower labels (E, F en G): -1,5 million owner-occupied houses will be insulated to The Standard (nationally defined specific heat resistances for different parts of the house)	1.5 million insulated owner-occupied houses	2030	NA	Number of insulated owner-occupied houses	Number of improved labels	NA	NA
add on to milestone 1	- 1 million rented houses of which 675.0000 corporation houses	1 million insulated rented houses	2030	NA	Number of insulated rented houses	Number of improved labels	NA	NA
Milestone / progress indicator 2	Fasing out worst performing (lower labels) non-residential buildings: - Insulate the 15% (label G, around 60.000) worst performing buildings to energy label C.	60.000 insulated non-residential buildings with originally label G	2027	NA	Number non-residential building insulated to label C with previously label G	Number of improved labels	NA	NA
add on to milestone 2	- Insulating buildings with energy label F (around 60.000 as well) to label C.	60.000 insulated non-residential buildings with originally label F	2030	NA	Number non-residential building insulated to label C with previously label F	Number of improved labels	NA	NA
Milestone / progress indicator 3	3% annual renovation (based of surface area) of buildings owned and occupied by the Dutch government and public buildings.	Alternative approach: 3% energy demand reduction from buildings owned and occupied by the Dutch government and public buildings	Annually, already in force for governmental property, as of 2024 for all public buildings	On average the energy demand (per surface area) of buildings owned and occupied by the Dutch government has annually decreased by 5% between 2008 and 2021.	Cumulative energy savings	ktoe	229	229
Milestone / progress indicator 4	Energy label C obligation for offices: Energy performance obligation for offices enforced by an obligatory registered energy label C.	All offices energy performance label C.	2024	There are approximately 65.000 offices in the Netherlands that have to comply to the label C obligation (some offices such as monuments do not have to comply). In the summer 2022 half of these offices have a registered energy label that is equal to or better than C. 40% of the offices do not have a registered label yet. Of this 40% is assessed that 30% have an energy performance equal to or better than energy label C.	Energy label representing the energy performance of the building	kWh/m2	NA	NA

Notes:

(1) Can be quantitative or qualitative

(2) If the target/objective is quantifiable, Member States to provide an indication of progress, with the latest available information. Indicators for reporting are to be determined on the basis of national objectives or targets

(3) Member States to refer to a base year and value, as appropriate, if this aids in demonstrating progress.

Annex IV Table 5

Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings - the contributions to the Union's energy efficiency targets

	Specification	Description
Please describe how progress towards the milestones in the long-term renovation strategy contributed to achieving the Union's energy efficiency targets in accordance with Directive 2012/27/EU	M	The milestones and indicators in table 4 all represent milestones resulting in a lowering of energy demand of the existing building stock and therefore a lowering of the GHG emission from these buildings. The accompanying policies and measures from the "Nationaal Isolatieprogramma" are meant to take away financial, technical, knowledge of organisational barriers.

Annex IV Table 6

Update of other national objectives on energy efficiency as reported in the integrated

Name of national target/ objective	Description	Progress towards target/ objective ⁽¹⁾	Expected impacts of the set objective ⁽²⁾
M _{iap}	M _{iap}	M _{iap}	M _{iap}
<i>National target / objective 1</i>			
<i>National target / objective 2</i>			
<i>Add further rows, as needed</i>			

Notes:

M_{iap} = mandatory if applicable; V = voluntary

(1) Member States shall provide an update on the progress achieved up to the current situation. If targets were set, an overview of the main actions and achieved milestones should be given. If targets were not set, then an update on whether targets have since been set and a description of the targets should be provided.

(2) Member States shall describe the expected impacts of the set objectives, and their timeframe.

Annex V Table 1

Details about national objectives, targets and contributions

Name of national target/ objective	Description	Relevance to article 22 ⁽¹⁾	Target year	Status ⁽²⁾	Policy which drove setting the objective (where relevant)		Entity responsible for achieving the objective	Energy sources and fuels covered ⁽⁵⁾
					Union policy ⁽³⁾	National policy (Legal reference) ⁽⁴⁾		
M	M	Miap	M _{iap}	M	M _{iap}	Miap	M	M
Phasing out natural gas extraction	The domestic natural gas extraction in the province of Groningen is set to be phased out.		2030	Implemented			Ministry of Economic Affairs and Climate Policy	Natural gas
National target / objective 2								
National target / objective 3								
Add further rows, as needed								

Notes:

M = mandatory; M_{iap} = mandatory if applicable

⁽¹⁾ Member States shall select from the following objectives (additional objectives may be added and specified under 'other'): diversification of energy sources and supply, reducing energy import dependency from third countries, development of the ability to cope with constrained or interrupted supply, flexibility of the national energy system, other.

⁽²⁾ Member States shall select from the following categories: planned; adopted; implemented; expired.

⁽³⁾ Member State shall select a policy/ policies from a list provided in the electronic version of the tabular format, or select other and specify the name of the Union policy.

⁽⁴⁾ National law or document defining the objective.

⁽⁵⁾ Member States shall select from the following options (more than one option can be selected, additional energy sources and fuels may be added and specified under 'other fuels'): whole system, electricity, gas, petroleum products, nuclear, other fuels.

Annex V Table 2

Progress towards implementation of quantifiable national objectives and targets

Name of national target/ objective	Indicator(s)	Unit	Category	Year			Target value / Year ⁽³⁾	Methodological notes ⁽⁴⁾	
				X-3	X-2	X-1 ⁽²⁾			
				M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	
Overall objectives and targets									
Diversification of energy sources and supply	Primary production	TJ	Coal						
			Natural Gas						
			Other fossil fuels and wastes						
			Oil and petroleum products						
			Renewables and biofuels						
			Nuclear Heat						
	Imports ⁽¹⁾								
Exports ⁽¹⁾									
Reducing energy import dependency from third countries	Energy dependence from third countries by fuel type ⁽⁵⁾	Percentage	Overall						
			By fuel	Coal					
				Natural Gas					
				Other fossil fuels and wastes					
				Oil and petroleum products					
			Combustible renewables (biofuels)						
Electricity and heat (including nuclear)									
Development of the ability to cope with constrained or interrupted supply of an energy source ⁽⁶⁾	Resilience of the power system	Hours	LOLE (Loss of load expectation) ⁽⁷⁾	0,1	0	4,5	4	expectation for 2030	
		MWh	EENS (expected energy not served) ⁽⁷⁾	87	0	4800		expectation for 2030	
	Resilience of the gas system	Percent	Result of the N-1 formula ⁽⁸⁾						
Nationally set objectives and targets									

Phasing out natural gas extraction	Natural gas extraction per gasyear	Billion Nm3	Natural Gas	7,8	4,5	2,8		Gas years (X-3: winter 2020/2021, X-2: winter 2021/2022, X-1: winter 2022/2023) X-3 is a realised level; X-2 and X-1 are agreed maximum levels of gas extraction.
National target / objective 2								
National target / objective 3								
Add further rows, as needed								

Notation: X = reporting year; Miap = mandatory if applicable

Notes:

- (1) Total imports and exports across all fuels included in the energy balances.
- (2) For Year X-1, Member States shall report on reporting elements for which such assessment is available.
- (3) Member States to report the value of the target and the relevant year the target should be achieved, where quantified targets associated with the metrics are present.
- (4) Member States to provide further methodological information regarding the indicator.
- (5) Only imports from third countries (Non-EU members).
- (6) Member States should report data from the most recent adequacy assessment made for the relevant year. For example, they should report the LOLE for the year X-1 as estimated either in year X-1, X-2 or earlier. The year in which the resource adequacy assessment was performed should be reported under Methodological notes. See also note (5).
- (7) To be calculated in accordance with the requirements of Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC (OJ L 158, 14.6.2019, p. 1) and of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (OJ L 158, 14.6.2019, p. 54). The specific methodology is set by the Agency for the Cooperation of Energy Regulators, in the Annex I of its decision on the Methodology for calculating the value of lost load, the cost of new entry, and the reliability standard.
- (8) To be calculated in accordance with the requirements of Annex II, Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010 (OJ L 280, 28.10.2017, p. 1). The N-1 rule calculates the technical capacity of the remaining infrastructure in case of disruption of the single largest gas infrastructure element, estimating whether this is able to satisfy gas needs equal to a day of exceptionally high demand that occurs with probability of once in 20 years.

Annex V Table 3

Progress towards implementation of non-quantifiable national objectives and targets

Name of national target / objective	Indicator(s)/ Milestone(s)	Target year	Description of indicator/milestone ⁽¹⁾	Progress towards target / objective ⁽²⁾	Details concerning the monitoring strategy ⁽³⁾	Reference to assessments and underpinning technical reports
M	M	M _{iap}	M	M	V	V
<i>National target objective 1</i>						
<i>National target objective 2</i>						
<i>National target objective 3</i>						
<i>Add further rows, as needed</i>						

Notes:

M = mandatory; Miap = mandatory if applicable; V = voluntary

(1) Member States shall provide details on the indicators/milestone and why this has been chosen to present progress with the objective.

(2) Member States shall provide qualitative information to summarise the current status of the indicator (for example whether it is on track, already achieved, missed, delayed, etc.).

(3) Details about how the indicator is monitored, for example via a set of indicators, via an expert review, via a panel, via a specific methodology and so on.

Annex VI Table 1

Progress towards national objectives relating to electricity interconnectivity

Name of national target/ objective	Unit	Year		Target value in 2030
		X-3	X-2	Miap
		M	M	
Nominal transmission capacity to installed generation capacity	%	21%	19%	15%
Nominal transmission capacity to peak load	%	51%	52%	
Nominal transmission capacity to installed renewable generation capacity	%	52%	41%	
Average or absolute hourly price differentials for day-ahead markets (separately for every intra-EU border) (1)	EUR/MWh			
Belgium	EUR/MWh	-0,4	1,2	
Germany	EUR/MWh	1,8	6,1	
Norway	EUR/MWh	23	27,7	
Great Britain	EUR/MWh	-7,3	NA	
Denmark	EUR/MWh	7,3	14,7	

Notation: X = reporting year; M = mandatory; Miap = mandatory if applicable Notes:

(1) The price differentials of day-ahead markets calculated and published by Agency for the Cooperation of Energy Regulators (ACER) in the annual Market Monitoring Report may be used.

Annex VI Table 2
Information on transmission Projects of Common Interest

<p>Please report any important developments on PCI projects compared to the last PCI Monitoring Report that might have an impact on the objectives and targets set in the national energy and climate plan.</p>	<p>M</p>	<p>Title: TR 335 - North Sea Wind Power Hub PCI code: 1.19 (5th list) Planned year of commissioning: 2035 Transmission commissioning: 2000 MW</p> <p>TenneT Netherlands, TenneT Germany, Energinet and Gasunie joined forces to develop a large scale European electricity system for offshore wind in the North Sea.</p> <p>Central to the vision is the construction of one or more hubs at a suitable location in the North Sea with interconnectors to bordering North Sea countries and between the hubs. The whole system may function as a hub for transport of wind energy, an interconnection hub to the connected countries, a working hub for offshore wind developers and a location for possible power-to-gas solutions. This project is a first building block in the hub-and-spoke concept (NSWPH) connecting up to 14 GW future offshore wind parks to the systems of Denmark, the Netherlands and Germany around 2035.</p>
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Notation: M = mandatory

Annex VI Table 3

Information on other main infrastructure projects

Project description									Project implementation				
Project name ⁽¹⁾	TYN DPID	Energy carrier ⁽²⁾	Project type ⁽³⁾	Project description	Planned year of commissioning	Transmission capacity (MW for electricity, GWh/d for natural gas, hydrogen and other gases/liquids)	Description of how the project will contribute to achieving the planned levels reported under Article 23(1)(a) ⁽²⁾	Description of how the project will contribute to the Energy Union dimensions	Project status	Description of progress	Implementation delay (years)	Rescheduling (years)	Reason for delays in implementation or for rescheduling of the project plan
Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap
<i>Project 1</i>													
<i>Project 2</i>													
<i>Add further rows, if needed</i>													

Notes:

Miap = mandatory if applicable

(1) Member States shall include in this table also PCI projects other than cross-border transmission projects, if they indirectly contribute to increasing the cross-border interconnectivity. The contribution to increased cross-border interconnectivity should be explained in the table.

(2) Member States to select from the following energy carriers (additional energy carrier may be added and specified under 'Other'): Electricity; Natural gas; Hydrogen; Other.

(3) Member States to provide general categories of infrastructure (for example LNG terminal; storage facility; third-country interconnector).

Annex VI Table 4

Progress towards national objectives relating to energy system flexibility, including with regards to renewable energy production

Name of national target/ objective	Description	Energy carrier ⁽¹⁾	Element(s) of system flexibility addressed ⁽²⁾	Target ⁽³⁾	Target year	Progress towards target/ objective	Progress Indicator(s) (if applicable) ⁽⁴⁾			
							Name of indicator to monitor progress ⁽⁵⁾	Unit	X-3	X-2
M	Miap	M	M	M	M	M	Miap	Miap	Miap	Miap
<i>National target / objective 1</i>										
<i>National target / objective 2</i>										
<i>National target / objective 3</i>										
<i>Add further rows, as needed</i>										

Notation: X = reporting year; M = mandatory; Miap = mandatory if applicable Notes:

(1) Member States shall select from the following options: electricity; natural gas; hydrogen.

(2) Member States shall select from the following options (more than one option may be selected, additional options may be added and specified under ‘other’): market integration and coupling aiming to increase the tradeable capacity and efficient use of interconnectors; smart metering/grids; aggregation; demand response; storage; distributed generation; mechanisms for dispatching, re-dispatching and curtailment; real-time price signals; other.

(3) Can be quantitative or qualitative

(4) If the target/objective is quantifiable, Member States shall provide an indication of progress, with the latest available information. Indicators for reporting are to be determined on the basis of national objectives or targets.

(5) Member States shall refer to a base year and value, as appropriate, if this aids in demonstrating progress.

Annex VI Table 5

Progress towards national objectives relating to non-discriminatory participation in energy markets

Name of national target / objective	Description	Energy carrier (1)	Element(s) of non-discriminatory participation addressed (2)	Target (3)	Target year	Progress towards target/ objective (4)
M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}	M _{iap}
<i>National target / objective 1</i>						
<i>National target / objective 2</i>						
<i>National target / objective 3</i>						
<i>Add further rows, as needed</i>						

Notes:

M_{iap} = mandatory if applicable

(1) Member States shall select from the following options: electricity; natural gas; hydrogen.

(2) Member States shall select from the following options (more than one option may be selected, additional options may be added and specified under 'other'): renewable energy; demand response; storage; other.

(3) Can be quantitative or qualitative

(4) When describing progress, Member States shall detail progress on non-discriminatory participation, considering the following elements, as relevant. This list is non-exhaustive and may be complemented by Member States:

In relation to markets: elements such as balancing markets, capacity markets (where applicable), wholesale energy markets, retail markets.

In relation to technologies: elements such as demand response, energy storage, aggregation, citizen energy communities/renewable energy communities, prosumers.

In relation to participation: elements such as market participation, tariff availability (including for charging points for electromobility; and energy storage e.g. preventing double charging for injection and withdrawal), dynamic price contract availability, simultaneous multi-service/product participation.

Annex VI Table 6

Progress towards national objectives relating to consumer participation in the energy system and benefits from self-generation and new technologies, including smart meters

Name of national target/ objective	Description	Energy carrier ⁽¹⁾	Element(s) of consumer participation addressed ⁽²⁾	Target ⁽³⁾	Target year	Progress towards target/ objective	Progress Indicator(s) (if applicable) ⁽⁴⁾			
							Name of indicator to monitor progress ⁽⁵⁾	Unit	X-3	X-2
M _{iap}	Miap	M _{iap}	M _{iap}	M _{iap}	Miap	Miap	Miap	Miap	Miap	Miap
Smart metering	Integration of smart metering of households	Electricity	Smart Metering/Grids	80%	2020		% of consumers connected to DSO-grid equipped with smart meter	%	84,5%	87,4%
<i>National target / objective 2</i>										
<i>National target / objective 3</i>										
<i>Add further rows, if needed</i>										

Notation: X = reporting year; Miap = mandatory if applicable Notes:

(1) Member States shall select from the following options: electricity; natural gas; hydrogen.

(2) Member States shall select from the following options (more than one option may be selected, additional options may be added and specified under 'other'): self generation; new technologies (including smart meters); c

(3) Can be quantitative or qualitative

(4) If the target/objective is quantifiable, Member States shall provide an indication of progress, with the latest available information. Indicators for reporting are to be determined on the basis of national objectives or target

(5) Member States shall refer to a base year and value, as appropriate, if this aids in demonstrating progress.

other.

its.

Annex VI Table 7

Progress towards national objectives relating to electricity system adequacy

Name of national target/ objective	Description	Element(s) addressed ⁽¹⁾	Target ⁽²⁾	Target year	Progress towards target/ objective	Progress Indicator(s) (if applicable) ⁽³⁾			
						Name of indicator to monitor progress ⁽⁴⁾	Unit	X-3	X-2
M	Miap	M	M	M	M	Miap	Miap	Miap	Miap
<i>National target / objective 1</i>									
<i>National target / objective 2</i>									
<i>National target / objective 3</i>									
<i>Add further rows, if needed</i>									

Notation: X = reporting year; M = mandatory; Miap = mandatory if applicable

(1) Member States shall select one or more from the following options: flexibility of energy system – renewable energy production; roll-out of intraday market coupling; roll-out of cross-border balancing markets; other.

(2) Can be quantitative or qualitative

(3) If the target/objective is quantifiable, Member States to provide an indication of progress, with the latest available information. Indicators for reporting are to be determined on the basis of national objectives or targets.

(4) Member States to refer to a base year and value, as appropriate, if this aids in demonstrating progress.

Annex VII Table 1

Progress towards national objectives translating the SET Plan objectives and policies to a national context

Name of national target/ objective ⁽¹⁾	Description	Supported Energy Union R&I priority ⁽²⁾	Supported Clean energy/ low carbon technologies ⁽³⁾⁽⁴⁾	Progress towards target/ objective	Progress indicator(s) (if applicable)				General comments
					Name of indicator to monitor progress	Value of indicator	Reference year	Unit	
Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	V
increase of R&D expenditure	increase total R&D expenditure to 2,5% of GDP	not applicable	not applicable	Increased private R&D expenditure by stimulating R&D within companies and PPPs by means of R&D grants and tax reduction	General R&D expenditure as a % of gross domestic product	2,26 ^(a)	2021	%	general innovation policy goal
<i>National target / objective 2</i>									
<i>Add further rows, as needed</i>									

Notes:

Miap = mandatory if applicable; V = voluntary

(1) Member States shall describe any national objective set up in the country, which is supporting the implementation and translation of the SET Plan.

(2) Member States shall select one or more priorities from a list provided in the electronic version of the tabular format.

(3) Member States shall select one or more technologies from a list provided in the electronic version of the tabular format.

(4) 'Clean energy and low carbon technologies' include all the technologies covered under the SET Plan.

(a) Preliminary number. Source: <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84644NED/table?ts=1674119829905>

Annex VII Table 2

Progress towards quantifiable national objectives for total public and, where available, private spending in research and innovation relating to clean energy technologies as well as for technology cost and performance development ⁽¹⁾

Name of national target/ objective	Unit	Specification	Year		Target value/ year	General comments
			X-3	X-2		
Public R&I expenditure						
Total Yearly R&I public expenditure in clean energy and low carbon technologies	Million EUR	Miap	149	176	NA	
Total yearly R&I public expenditure in clean energy and low-carbon technologies, as a percentage share of overall public R&I expenditure	%	Miap	2,48	2,8	NA	
Total yearly R&I public expenditure in clean energy and low-carbon technologies, as a percentage share of annual GDP	%	Miap	0,0186	0,0204	NA	
Private R&I expenditure						
Total Yearly R&I private expenditure in clean energy and low carbon technologies	Million EUR	V				
Total yearly R&I private expenditure in clean energy and low-carbon technologies, as a percentage share of overall private R&I expenditure	%	V				
Total yearly R&I private expenditure in clean energy and low-carbon technologies, as a percentage share of annual GDP	%	V				
Other nationally set objectives and targets						
<i>National target / objective 1</i>		Miap				
<i>National target / objective 2</i>		Miap				
<i>Add further rows, as needed</i>		Miap				

Notation: X = reporting year; Miap = mandatory if applicable; V = voluntary

(1) 'Clean energy technologies and low carbon technologies' include all the technologies covered under the SET Plan.

Member States shall provide national objectives for total public and, where available, private spending in research and innovation relating to clean energy technologies as well as for technology cost and performance development. Member States to include separate objectives as needed, covering public and private spending, technology focus objectives, performance development, etc.

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Annex VII Table 3

Progress towards non-quantifiable national objectives for total public and, where available, private spending in research and innovation relating to clean energy technologies as well as for technology cost and performance development ⁽¹⁾

Name of national target/ objective	Description	Supported Energy Union R&I priority ⁽²⁾	Supported Clean energy/ low carbon technologies ⁽³⁾	Progress towards target/ objective ⁽⁴⁾	Expected impacts of the set objective ⁽⁵⁾
Miap	Miap	V	V	Miap	Miap
Multi-annual Mission-oriented Innovation Programme 1: Renewable offshore electricity	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Cost reduction and optimisation • Integration of offshore energy in the energy system • Integration in the environment (ecology and joint use) 	No. 1 in renewables	Wind (offshore)	no specific targets set	Increased share of renewables in the national energy production and consumption
Multi-annual Mission-oriented Innovation Programme 2: Renewable electricity generation on land and in the built-up environment	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Lowering costs of generation • New applications, optimally integrated • Acceleration with social enthusiasm • Integrated sustainability • Integration in the energy system 	No. 1 in renewables	Wind (onshore), Photovoltaics, Heat Pumps	no specific targets set	Increased share of renewables in the national energy production and consumption
Multi-annual Mission-oriented Innovation Programme 3: Accelerating energy renovation in the built-up environment	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Enthusiasm of property owners and users with regard to energy renovation (MVI) • Robotisation, digitisation and integration of installation technology in building elements • Energy concepts (incl. optimisation in the chain) 	Energy efficiency	Wind (onshore), Photovoltaics, Heat Pumps	no specific targets set	Increased share of renewables in the national energy production and consumption
Multi-annual Mission-oriented Innovation Programme 4: Renewable heat (and cooling) in the built-up environment (including greenhouse horticulture)	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Silent, compact, smart, cost-efficient heat pumps • Delivery, ventilation and tap water systems • Smart, compact, heat battery • Smart low/medium temperature heat grids • Large-scale thermal storage • Geothermal energy 	No. 1 in renewables	Heat Pumps, Batteries, Novel Electricity and Heat Storage technologies, Geothermal heat and power	no specific targets set	Increased share of renewables in the national energy production and consumption
Multi-annual Mission-oriented Innovation Programme 5: The new energy system in the built-up environment in balance	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Local system optimisation • Control algorithms for savings, energy optimisation and sector coupling • Data architecture and operating systems • Flexibility and electricity storage 	<ul style="list-style-type: none"> • Energy systems • Energy efficiency 	Wind (onshore), Photovoltaics, Heat Pumps, Batteries, Novel Electricity and Heat Storage technologies	no specific targets set	Increased share of renewables in the national energy production and consumption
Multi-annual Mission-oriented Innovation Programme 6: Completing industrial circles	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Circular raw materials and products • Bio-based raw materials and products • Design and embedding of new circular chains • Application of CCS and social acceptance 	CCUS	Other, CO2 reduction	no specific targets set	CO2 emission reduction
Multi-annual Mission-oriented Innovation Programme 7: CO2-free industrial heat system	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Heat recycling, upgrading and storage • Deep and ultra-deep geothermal energy for industry • Application of climate-neutral fuels • System concepts for heat and cooling • Maximising process-efficiency 	CCUS	Novel Electricity and Heat Storage technologies, Other, CO2 reduction	no specific targets set	CO2 emission reduction
Multi-annual Mission-oriented Innovation Programme 8: Electrification and radically renewed processes	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Production of hydrogen, molecules and innovative renewable fuels • Electric machines and electrically powered processes • Increased flexibility and digitisation • Radically renewed processes • Social implications of industrial electrification 	<ul style="list-style-type: none"> • Energy systems • Energy efficiency 	Novel Electricity and Heat Storage technologies	no specific targets set	Increased share of renewables in the national energy production and consumption, CO2 emission reduction

Multi-annual Mission-oriented Innovation Programme 9: Innovative transmission and use of sustainable energy carriers for mobility	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Zero Emission propulsion technology and vehicles • Energy distribution for electric vehicles • Distribution of hydrogen and other energy carriers for fuel cell vehicles • Innovative renewable fuels • Energy-efficient vehicles 	Sustainable transport	Hydropower & Pumped Hydropower Storage, Renewable Hydrogen, Bioenergy, Renewable Fuels of non-biological origin (other)	no specific targets set	Increased share of renewables in the national energy production and consumption, CO2 emission reduction
Multi-annual Mission-oriented Innovation Programme 10: Targeted transport movements for people and goods	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Knowing what moves people • CO2 reduction through new mobility concepts for passenger transport • CO2 reduction through innovations in logistics • Transition-supporting knowledge and tools 	Sustainable transport	Other, CO2 reduction	no specific targets set	CO2 emission reduction
Multi-annual Mission-oriented Innovation Programme 11: Climate-neutral production of food and non-food	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Reduction of methane emissions by rumen and intestinal fermentation • Reduction in emissions from housing and manure storage • Carbon sequestration and the reduction of emissions from agricultural soil and fertilisers • Reduction of emissions from peat meadow areas 	CCUS	Other, CO2 reduction	no specific targets set	CO2 emission reduction
Multi-annual Mission-oriented Innovation Programme 12: Land and water optimally oriented in terms of CO2 sequestration and use	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Seaweed processing, cultivation and post-harvest • Doubled photosynthesis • Protein for human consumption • Climate-proof nature • Climate-friendly choice when purchasing products • Healthy food choice • Consumption reduction to zero emissions 	CCUS	Other, CO2 reduction	no specific targets set	CO2 emission reduction
Multi-annual Mission-oriented Innovation Programme 13: A robust and socially supported energy system	The innovation programme aims to support the following goals: <ul style="list-style-type: none"> • Joint fact-based decision-making and design, including earning models • Spatial integration • Infrastructure design, flexibility, market mechanisms and digitisation • Power-to-molecules • Large-scale energy storage, energy transport and hybridisation of the energy demand 	Energy systems	Other, CO2 reduction	no specific targets set	CO2 emission reduction

Notes:

Miap = mandatory if applicable; V = voluntary

(1) 'Clean energy technologies and low carbon technologies' include all the technologies covered under the SET Plan.

Member States shall provide national objectives for total public and, where available, private spending in research and innovation relating to clean energy technologies as well as for technology cost and performance development. Member States to include separate objectives as needed, covering public and private spending, technology focus objectives, performance development, etc.

(2) Member States may select one or more priorities from a list provided in the electronic version of the tabular format.

(3) Member States may select one or more technologies from a list provided in the electronic version of the tabular format.

(4) Member States shall provide an update on the progress achieved up to the current situation. If targets were set, an overview of the main actions and achieved milestones should be given. If targets were not set, then an update on whether targets have since been set and a description of the targets should be provided.

(5) Member States shall describe the expected impacts of the set objectives, and their timeframe.

Annex VII Table 4

Progress towards national objectives, including long-term targets for 2050 for the deployment of technologies for decarbonising energy- and carbon-intensive industrial sectors and, where applicable, for related carbon transport, use, and storage infrastructure⁽¹⁾

Name of national target/ objective	Description	Progress towards target/ objective	Progress indicator(s) (if applicable)				General Comments
			Name of indicator to monitor progress	Value of indicator	Reference year	Unit	
Miap	Miap	Miap	Miap	Miap	Miap	Miap	V
National Climate Agreement: electricity production 100% CO2 neutral by 2050	continued reduction of the use of natural gas in (primarily decentralised) production of electricity through cogeneration and reduced demand for natural gas by industry and households	continuous decline of CO2 emission factor: in 2020 the CO2 emission factor was reduced to about 50% of the value in 2000.	CO2 emission factor	0,30	2021	kg/kWh	CO2 emission factor is defined as the CO2 emission (kg) per kWh electricity produced
<i>National target / objective 2</i>							
<i>Add further rows, as needed</i>							

Notes:

Miap = mandatory if applicable; V = voluntary

(1) Member State shall describe any long-term plans for decarbonising measures in the industrial sector. Elements such as energy efficiency, carbon capture and storage, electrification and any other technologies that will contribute towards decarbonisation should be included. Milestones, objectives, and timeframe should be provided, as well as an indication of the considered technologies and their expected deployment.

Annex VII Table 5

Progress towards national objectives with regard to competitiveness

Name of national target/ objective	Description	Progress towards target/ objective	Progress indicator(s) (if applicable)				General Comments
			Name of indicator to monitor progress	Value of indicator	Reference year	Unit	
Miap	Miap	Miap	Miap	Miap	Miap	Miap	V
<i>National target / objective 1</i>							
<i>National target / objective 2</i>							
<i>Add further rows, as needed</i>							

Notes:

Miap = mandatory if applicable; V = voluntary

(1) Member States shall describe any targets or objectives in the area of competitiveness. These could include objectives related to:

- Patents and research publications
- Value chain aspects such as milestones and targets in new job fields, company start-ups and growth in specific energy sectors.
- The global or internal/domestic market, such as international/national market penetration of technologies and trade volumes (change in imports and/or exports) on both a European and global scale.

Annex VIII Table 1

Progress towards national objectives to phase out energy subsidies, in particular for fossil fuels ⁽¹⁾

National objective(s) set to phase out energy subsidies, in particular for fossil fuels	Description	Target year ⁽²⁾	Milestones ⁽³⁾	Progress towards target/ objective ⁽⁴⁾	Steps to ensure phase out does not affect efforts to reduce energy poverty ⁽⁵⁾	General comments
M	Miap	Miap	Miap	M _{iap}	M _{iap}	V
Modification of degressive energy tax rate structure	Reduced tax rates for natural gas and electricity apply to energy-intensive companies. In accordance with Fit for 55 the tax rate structure will be made less degressive from 2023 onwards.	2030	3,75 Bln EUR saved by 2030 by the government because of less degressive energy tax tariffs	250 Mln EUR saved by 2023 and additional 500 Mln EUR saved yearly because of less degressive energy tax tariffs starting from 2024 towards 2030		source: https://open.overheid.nl/documenten/ronl-f3cb0d9c-878b-4608-9f6a-8a2f6e24a410/pdf
Phasing out of the tax exemption for energy-intensive processes for the production of minerals and metals	Phasing out of the tax exemption for energy-intensive processes in the production of minerals and metals	2030	473 Mln EUR saved by 2030 by the government because of phasing out of the tax exemption for energy-intensive processes	78 Mln EUR saved yearly from 2025 onwards		source: https://open.overheid.nl/documenten/ronl-f3cb0d9c-878b-4608-9f6a-8a2f6e24a410/pdf
Modification of sustainable energy surcharge tax (ODE)	Modification of sustainable energy surcharge tax (ODE) and decoupling of ODE and SDE (Stimulation of sustainable energy production)	2030	lower taxation on sustainable energies: 3,788 Bln EUR by 2030	lower taxation on sustainable energies: 288 Mln EUR in 2023 and additional 500 Mln EUR reduction of tax collection extra yearly from 2024 onwards		source: https://open.overheid.nl/documenten/ronl-f3cb0d9c-878b-4608-9f6a-8a2f6e24a410/pdf
Review of the support mechanism for renewable energy and cogeneration (CHP) in agriculture.	Review of the input exemption of the support mechanism for renewable energy and cogeneration (CHP) in agriculture.	2030	600 Mln EUR saved by 2030	100 Mln EUR saved yearly from 2025 onwards		source: https://open.overheid.nl/documenten/ronl-f3cb0d9c-878b-4608-9f6a-8a2f6e24a410/pdf
Phasing out of the reduced energy tax tariff for firms in horticulture	Phasing out of the reduced energy tax tariff for firms in horticulture	2030	236 Mln EUR saved by 2030	45 Mln EUR saved by 2025 and 33 Mln EUR saved yearly from 2026 towards 2030		source: https://open.overheid.nl/documenten/ronl-f3cb0d9c-878b-4608-9f6a-8a2f6e24a410/pdf

Notes:

M = mandatory; Miap = mandatory if applicable; V = voluntary

(1) Member States shall report any objectives to phase-out fossil fuel subsidies and any objectives to phase-out other energy subsidies. Member States should indicate in the description column whether the objective has been laid down in legislation and, if applicable, provide the reference to the relevant legislation.

If no objectives are set to phase out energy subsidies, Member States shall report on any plans to make a phase out commitment or set a phase out objective. Member States shall include in the description column a short description of these plans, and clarify when such commitments are expected to become effective. (2) Member States shall provide a target year the objective should be achieved.

(3) Member States shall specify any quantitative milestones. For example, 50% phase out by 2024, 100% phase out by 2026.

(4) Member States shall report on progress accomplished towards meeting the objective and the milestones, if relevant.

(5) Member States shall report on any steps taken to ensure the phase outs do not affect efforts to reduce energy poverty. Member States shall provide whether estimates of economic and other impacts of fossil fuel subsidy phase outs on energy poor households have been developed, what policies or measures are in place or proposed to alleviate such impacts (for example support for home energy renovations and high energy efficiency technology, such as electric heat pumps and home insulation).

	B	C	D	E	F	G	H	I	J
1	Annex IX Table 1								
2	Key characteristics and progress towards implementing policies and measures								
3									
4	PaM number	PaM number in NECP, if different	Name of policy or measure	Single or grouped policy or measure	In case of a grouped policy or measure, which single policies or measures does it cover	Relevant objective(s), target(s) or contribution(s) the policy or measure contributes to ⁽¹⁾	Geographical coverage ⁽²⁾	Sector(s) affected ^{(3)(a)}	Objective ^{(4)(b)}
5	M	M _{iap}	M	M	M	M	M	M	M
6	1	ANL-PAM-1001	Energy tax, incl. sustainable energy surcharge (ODE)	Single		Decarbonisation: Renewable energy	National	2	10, 11, 12, 13, 15
7	2	ANL-PAM-1002	EIA Energy Investment Tax Allowance scheme	Single		Decarbonisation: Renewable energy	National	2	10, 13
8	3	ANL-PAM-1003	Efficient Driving Campaign (Eco driving)	Single		Energy efficiency	National	3	21
9	4	ANL-PAM-1004	Gas Act and gas free connections in new buildings	Single		Decarbonisation: GHG emissions and removals	National	1	3
10	6	ANL-PAM-1006	Net metering (and VAT return)	Single		Decarbonisation: Renewable energy	National	1	1
11	7	ANL-PAM-1007	Programme Greenhouse as an Energy Source	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 6, 8	9, 15, 45
12	9	ANL-PAM-1009	MEI Market introduction for energy innovations	Single		Energy efficiency	National	1, 2	1, 15
13	10	ANL-PAM-1010	Subsidy schemes on energy efficiency and renewable energy in horticulture (EG and precursors EHG, IMM and IRE)	Single		Decarbonisation: Renewable energy	National	2	15

	B	C	D	E	F	G	H	I	J
13		ANL-PAM-1013	Environmental Protection Act: Framework and obligations on energy savings	Single		Decarbonisation: GHG emissions and removals	National	2, 4	10, 13, 29
14									
15		ANL-PAM-1015	Lower Value Added Tax on isolation	Single		Energy efficiency	National	2	10
16		ANL-PAM-1016	Green Deals Programme	Single		Energy efficiency	National	1, 2, 3, 4, 5, 6, 7, 8	57
17		ANL-PAM-1017	Extending mortgage options for energy saving measures	Single		Energy efficiency	National	2	10
18		ANL-PAM-1018	Sectoral emission trading system in horticulture	Single		Decarbonisation: GHG emissions and removals	National	2	15
19		ANL-PAM-1019	Topsector Energy: Consortia (TKI)	Framework		Research, innovation and competitiveness	National	1, 2, 4	1, 2, 7, 10, 12, 13, 29
20		ANL-PAM-1021	National Heat Fund (earlier NEF National Energy Saving Fund)	Single		Energy efficiency	National	2	10
21		ANL-PAM-1022	Postal code area cooperative projects (RVT)	Single		Decarbonisation: Renewable energy	National	1	1
22		ANL-PAM-1023	HER Subsidy scheme renewable energy	Single		Research, innovation and competitiveness	National	1	1,2
23		ANL-PAM-1024	MIT Innovation Credit for SMEs	Single		Research, innovation and competitiveness	National	1, 2, 3, 4, 5, 6, 7, 8	57
24		ANL-PAM-1025	ISDE Investment subsidies small renewable energy systems	Single		Energy efficiency	National	1, 2	2, 10
25		ANL-PAM-1026	Campaign on tyre choice and pressure	Single		Energy efficiency	National	3	16, 21

	B	C	D	E	F	G	H	I	J
26	27	ANL-PAM-1027	Roadmap and tenders Off shore Wind Dutch Coast	Single		Decarbonisation: Renewable energy	National	1	1
27	29	ANL-PAM-1029	SEEH Energy saving at Home subsidy scheme	Single		Energy efficiency	National	2	10
28	30	ANL-PAM-1030	Alternative Travel approach	Single		Decarbonisation: GHG emissions and removals	National	3	17, 21, 23
29	31	ANL-PAM-1031	Reduction gas production levels	Single		Energy efficiency	National	1	3
30	32	ANL-PAM-1032	Government-wide Programme for a Circular Economy (RBCE): 'A Circular Economy in the Netherlands by 2050'	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 6, 7, 8	29, 31, 57
31	33	ANL-PAM-1033	Housing Valuation System changes	Single		Energy efficiency	National	2	10
32	34	ANL-PAM-1034	Demonstration schema Climate technologies & innovations in transport	Single		Research, innovation and competitiveness	National	3	16, 23
33	35	ANL-PAM-1035	Guaranteed Loans for Agriculture (BL/GL)	Single		Decarbonisation: GHG emissions and removals	National	2, 6	15, 45
34	37	ANL-PAM-1037	Green Deal 225 Car sharing II	Single		Energy efficiency	National	3	20, 21
35	38	ANL-PAM-1038	Programme and large scale pilots on natural-gas-free neighbourhoods	Single		Energy efficiency	National	1, 2	3, 10
36	39	ANL-PAM-1039	Municipal heat transition visions (TVW), advice scheme (EAW) & knowledge centre on heat (ECW)	Single		Energy efficiency	Local	1, 2	1, 2, 10

	B	C	D	E	F	G	H	I	J
37	40	ANL-PAM-1040	Environment & Planning Act	Framework		Decarbonisation: GHG emissions and removals	National	1, 2, 4, 5, 6, 7,8	57
38	41	ANL-PAM-1041	Green Deal 230 Sea transport, inland shipping and harbours	Single		Decarbonisation: GHG emissions and removals	National	3	23, 24
39	42	ANL-PAM-1042	Sustainability scheme Reduction Landlord charges for Housing Associations	Single		Energy efficiency	National	2	10
40	43	ANL-PAM-1043	National policy framework for the infrastructure of alternative fuels & National Agenda on charging infrastructure	Single		Decarbonisation: GHG emissions and removals	National	3	22
41	44	ANL-PAM-1044	Climate Agreement	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 6, 7,8	57
42	45	ANL-PAM-1045	Hydrogenprogramme	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4	1, 3, 18, 29
43	46	ANL-PAM-1046	National Program on Regional Energy strategies	Single		Decarbonisation: Renewable energy	Local	1, 2	57
44	47	ANL-PAM-1047	Peat areas plan, national research programma & pilot projects water management peat areas	Single		Decarbonisation: GHG emissions and removals	National	7	54
45	48	ANL-PAM-1048	Climate Act	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 6, 7,8	57
46	49	ANL-PAM-1049	Roadmaps for sustainability & Performance standards for office & service buildings	Single		Decarbonisation: GHG emissions and removals	National	2	10
47	50	ANL-PAM-1050	Performance standards (social) housing	Single		Energy efficiency	National	2	10
48	51	ANL-PAM-1051	BOSA Subsidy scheme for buiding and maintanance of sporting accommodations	Single		Energy efficiency	National	1, 2	1, 10

	B	C	D	E	F	G	H	I	J
49	52	ANL-PAM-1052	Subsidy scheme Reduction Energy Use Dwellings	Single		Energy efficiency	National	2	10
50	53	ANL-PAM-1053	Block by Block approach	Single		Energy efficiency	National	2	10
51	54	ANL-PAM-1054	Climatecampaign 'Everybody acts'	Single		Decarbonisation: GHG emissions and removals	National	2, 3	10, 21
52	55	ANL-PAM-1055	Environmental Protection Act: Mandatory reporting of measures taken (notification obligation)	Single		Decarbonisation: GHG emissions and removals	National	2	10, 13
53	57	ANL-PAM-1057	National Programme Agricultural Soils	Single		Decarbonisation: GHG emissions and removals	National	6	44
54	58	ANL-PAM-1058	Healthy food & efficient use	Single		Decarbonisation: GHG emissions and removals	National	6	45
55	59	ANL-PAM-1059	DEI+ Demonstration scheme Energy & Climate innovations	Single		Research, innovation and competitiveness	National	1, 2, 4	1, 2, 7, 10, 12, 13, 29
56	60	ANL-PAM-1060	IKIA Integral Knowledge & Innovation Agenda on Climate	Single		Research, innovation and competitiveness	National	1, 2, 3, 4, 5, 6, 7, 8	57
57	61	ANL-PAM-1061	Accelerated Climate-related Investments in Industry (VEKI)	Single		Decarbonisation: GHG emissions and removals	National	2, 4	13, 29
58	62	ANL-PAM-1062	Regional industrial cluster approach (CES) (incl. programmes with big-12)	Single		Decarbonisation: GHG emissions and removals	National	2, 4	13, 29
59	63	ANL-PAM-1063	Subsidy scheme for high-quality manure processing	Single		Decarbonisation: GHG emissions and removals	National	6	39
60	64	ANL-PAM-1064	Forest strategy and management measures	Single		Decarbonisation: GHG emissions and removals	National	7	47, 48, 50
61	65	ANL-PAM-1065	Prohibiting coal for electricity generation	Single		Decarbonisation: GHG emissions and removals	National	1	3
62	66	ANL-PAM-1066	Renovation acceleration programme and subsidy scheme for houses rental sector (part of "Renovatieversneller" and "Starter motor" approach)	Single		Energy efficiency	National	2	10

	B	C	D	E	F	G	H	I	J
63	67	ANL-PAM-1067	SDE++ subsidy scheme for Stimulation of Sustainable Energy Production and Climate Transition	Single		Decarbonisation: GHG emissions and removals	National	1	1, 2
64	68	ANL-PAM-1068	Stimulation scheme natural gas free rental housing (SAH, part of initial approach " Starter motor")	Single		Decarbonisation: GHG emissions and removals	National	2	10
65	69	ANL-PAM-1069	Minimum CO2 price electricity production	Single		Decarbonisation: GHG emissions and removals	National	1	1
66	70	ANL-PAM-1070	Subsidy scheme LNG (Liquefied Natural Gas)	Single		Decarbonisation: GHG emissions and removals	National	3	18
67	71	ANL-PAM-1071	Digital Platform	Single		Energy efficiency	National	2	10
68	72	ANL-PAM-1072	SEPP Subsidy scheme electric passenger cars	Single		Decarbonisation: GHG emissions and removals	National	3	19
69	74	ANL-PAM-1074	Subsidy scheme Circular Economy Projects (SCK)	Single		Decarbonisation: GHG emissions and removals	National	4, 5	29, 31
70	75	ANL-PAM-1075	Mission oriented R&D and innovation	Single		Research, innovation and competitiveness	National	2	10, 13
71	77	ANL-PAM-1077	Energy label: requirement label C for buildings	Single		Energy efficiency	National	2	10
72	78	ANL-PAM-1078	Clean Air Agreement	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 8	2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57
73	79	ANL-PAM-1079	Buy out scheme livestock farmers by Provinces	Single		Decarbonisation: GHG emissions and removals	Regional	6	39
74	80	ANL-PAM-1080	Subsidy scheme (local) Cooperative Energy production (SCE)	Single		Decarbonisation: Renewable energy	National	1	1

	B	C	D	E	F	G	H	I	J
75	81	ANL-PAM-1081	National CO2 pricing system for industry	Single		Decarbonisation: GHG emissions and removals	National	2, 4	13, 29
76	82	ANL-PAM-1082	Conversion programme livestock farming & the circular agriculture approach	Framework		Decarbonisation: GHG emissions and removals	National	6	39
77	83	ANL-PAM-1083	National buy out scheme livestock farmers	Single		Decarbonisation: GHG emissions and removals	National	6	39
78	84	ANL-PAM-1084	Heavy goods vehicle charge	Single		Decarbonisation: GHG emissions and removals	National	3	16, 21
79	85	ANL-PAM-1085	Fiscal policies on car efficiency (BPM, MRB and income tax)	Single		Energy efficiency	National	3	16
80	86	ANL-PAM-1086	Green Funds Scheme	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 6, 7, 8	57
81	87	ANL-PAM-1087	MIA/VAMIL Environmental investment allowance/Arbitrary depreciation of environmental investment schemes	Single		Decarbonisation: GHG emissions and removals	National	2, 3, 4, 5, 6, 7, 8	57
82	89	ANL-PAM-1089	Zero-emission cleaning vehicles covenant	Single		Decarbonisation: GHG emissions and removals	National	3	16,18
83	96	ANL-PAM-1096	System Integration (Smart Multi Commodity Energy Systems)	Single		Research, innovation and competitiveness	National	1, 2	1, 2
84	97	ANL-PAM-1097	Subsidy Scheme for the Sustainability and Maintenance of Rental Properties	Single		Energy efficiency	National	2	5, 9, 10, 11, 15
85	98	ANL-PAM-1098	DraftClimateProgram	Single		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 6, 7, 8	57
86	99	ANL-PAM-1099	Subsidy scheme for sustainable social real estate	Single		Energy efficiency	National	2	5, 9, 10, 11, 15
87	100	ANL-PAM-1100	Legislative proposal Municipal Instruments for the Heat Transition	Single		Decarbonisation: GHG emissions and removals	National	2	5, 9, 10, 11, 15

	B	C	D	E	F	G	H	I	J
88	101	ANL-PAM-1101	Energy performance - BENG	Single		Energy efficiency	National	2	5, 9, 10, 11, 15
89	102	ANL-PAM-1102	Subsidy module agricultural business advice and education	Single		Decarbonisation: GHG emissions and removals	National	6, 7	39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57
90	103	ANL-PAM-1103	Specific Benefit Zero-Emission Buses (SpUK-ZEbus)	Single		Decarbonisation: GHG emissions and removals	National	3	16, 17, 18, 19, 22, 24
91	104	ANL-PAM-1104	Subsidy Scheme for Clean and Emission-Free Construction Equipment	Single		Decarbonisation: GHG emissions and removals	National	3	16,18
92	105	ANL-PAM-1105	Purchase subsidy Zero Emission Trucks	Single		Decarbonisation: GHG emissions and removals	National	3	16, 18, 19, 22, 24
93	106	ANL-PAM-1106	Energieprestatie-eisen bij verbouw en renovatie	Single		Energy efficiency	National	2	5, 9, 10, 11, 15
94	107	ANL-PAM-1107	Subsidy Scheme for Sustainability of SMEs	Single		Energy efficiency	National	2	1, 2, 5, 10, 11, 12, 13, 14, 15
95	108	BNL-PAM-0002	Electricity Act	Single		Internal energy market	National	1	9
96	109	BNL-PAM-0139	North Sea Agreement	Single		Decarbonisation: Renewable energy	National	1	57
97	110	BNL-PAM-0059	Building Decree (incl. EPC)	Single		Energy efficiency	National	2	10
98	111	BNL-PAM-0138	Support scheme Unburdening Social Real Estate towards sustainability	Single		Energy efficiency	National	2	10
99	112	BNL-PAM-0071	Heating Act	Single		Decarbonisation: GHG emissions and removals	National	2	10
100	113	BNL-PAM-0122	DEI+ Demonstration scheme Energy & Climate innovations Circular Economy	Single		Research, innovation and competitiveness	National	1, 2, 3, 4, 5, 8	1, 3, 5, 6, 7, 8, 9, 11, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 57
101	114	BNL-PAM-0137	Programme Main Energy Infrastructure	Single		Energy security	National	1	9
102	115	BNL-PAM-0141	HER+ Subsidy scheme renewable energy transition	Single		Research, innovation and competitiveness	National	1	29

	B	C	D	E	F	G	H	I	J
103	116		Stimulating the development and upscaling of recycling	Single		Research, innovation and competitiveness	National	4, 5, 8	29, 37, 57
104	117		Mandatory percentage of recycled materials in construction	Single		Decarbonisation: GHG emissions and removals	National	4, 7, 8	9, 15, 49, 53, 57
105	118		Subsidies for exchanging old refrigerators and freezers	Single		Decarbonisation: GHG emissions and removals	National	2, 5	11, 31
106	119		Extended producer responsibility for textiles	Single		Decarbonisation: GHG emissions and removals	National	4, 5, 7	29, 31, 51
107	120		Grid investment programme	Single		<p>In dimension Decarbonisation: Renewable energy - A contribution to the Union's binding target of at least 32% renewable energy in 2030 as referred to in Article 3 of Directive (EU) 2018/2001</p> <p>In dimension Energy security - National objectives with regard to increasing the flexibility of the national energy system, in particular by means of deploying domestic energy sources, demand response and energy storage; National objectives with regard to addressing constrained or interrupted supply of an energy source, for the purpose of improving the resilience of regional and national energy systems.</p> <p>In dimension Internal energy market - The level of electricity interconnectivity that the Member State aims for in 2030 in consideration of the electricity interconnection target for 2030 of at least 15%; Key electricity and gas transmission infrastructure projects, and, where relevant, modernisation projects, that are necessary for the achievement of objectives and targets under the five dimensions of the Energy Union; National objectives related to other aspects of the internal energy market such as increasing system flexibility, in particular related to the promotion of competitively determined electricity prices in line with relevant sectoral law, market integration and coupling, aimed at increasing the tradeable capacity of existing interconnectors, smart grids, aggregation, demand response, storage, distributed generation, mechanisms for dispatching, re-dispatching and curtailment, and real-time price signals; National objectives related to the non-discriminatory participation of renewable energy, demand response and storage, including via aggregation, in all energy markets; National objectives with regard to ensuring electricity system adequacy, as well as for the flexibility of the energy system with regard to renewable energy production;</p>	National	1, 2	1, 2, 6, 13, 15

	B	C	D	E	F	G	H	I	J
108	121		National Growth Fund	Single		In dimension Research, innovation and competitiveness - National objectives and funding targets for public and, where available, private research and innovation relating to the Energy Union; National objectives with regard to competitiveness	National	1, 2, 3, 4, 5, 6, 7, 8	research and innovation in energy supply; research and innovation in technologies, processes and materials, which will contribute to reduction in energy consumption; research and innovation to reduce emissions from the transport sector; research and innovation in making EU industry less energy intensive
109	122		Invest-NL	Single		Research, innovation and competitiveness	National	1, 2, 3, 4, 5, 6, 7, 8	57
110	123		Flip the Switch	Single		Energy security	National	2	14
111	124	BNL-PAM-0136	GoChem (KIEM-Go-Chem)	Single		Research, innovation and competitiveness	National	2, 4	57
112	125	BNL-PAM-0160	Programme Infrastructure Sustainable Industrie (PIDI) & Multi-year implementation programme Main Energy Infrastructure (MIEK)	Single		Decarbonisation: GHG emissions and removals	National	1	9
113	126	BNL-PAM-0163	Subsidies sustainable measures for stables and manure management	Single		Decarbonisation: GHG emissions and removals	National	6	42
114	127	BNL-PAM-0170	Common Market Organisation, Fruit and Vegetables	Single		Decarbonisation: GHG emissions and removals	National	6, 7	57
115	128		Subsidy scheme for the remediation of pig farms (Srv)	Single		Decarbonisation: GHG emissions and removals	National	6	42
116	129		Interim Environmental Ordinance North Brabant	Single		Decarbonisation: GHG emissions and removals	Regional	6, 7	41
117	130		Limburg Environment Ordinance 2014 (and 2021)	Single		Decarbonisation: GHG emissions and removals	Regional	7	41
118	131		Meadow grazing (structural approach to nitrogen)	Single		Decarbonisation: GHG emissions and removals	National	6	41
119	132		Measure for optimizing dairy cattle feed rations (structural approach to nitrogen)	Single		Decarbonisation: GHG emissions and removals	National	6	41
120	133		Voluntary purchase scheme for veal farms in the province of Gelderland	Single		Decarbonisation: GHG emissions and removals	Regional	6	45
121	134		7th Nitrates Directive Action Programme	Single		Decarbonisation: GHG emissions and removals	National	6	42

	B	C	D	E	F	G	H	I	J
122	135		Development of low-methane feed dairy cows	Single		Decarbonisation: GHG emissions and removals	National	6	41
123	136		POP3 Subsidy For Making Stables More Sustainable And Reducing Nitrogen (Calf Sector)	Single		Decarbonisation: GHG emissions and removals	Regional	6	41
124	137		POP3: Investment in calf barns	Single		Decarbonisation: GHG emissions and removals	Regional	6	41
125	138		Economic Recovery Fund (EHF) – Subsidy for green economic recovery in agriculture	Single		Decarbonisation: GHG emissions and removals	National	6	45
126	139		Reduction Nitrogen Application livestock manure (loss of derogation)	Single		Decarbonisation: GHG emissions and removals	National	6	39, 41, 42, 45
127	140		Nutrient polluted areas	Single		Decarbonisation: GHG emissions and removals	National	6	39
128	141		Subsidy scheme transition derogation	Single		Decarbonisation: GHG emissions and removals	National	6	43
129	142		subsidy scheme cooperation in peatland areas and transition areas near Natura 2000	Single		Decarbonisation: GHG emissions and removals	National	6, 7	54
130	143	BNL-PAM-0065	Green Deal 173 Zero Emission City Logistics	Single		Decarbonisation: GHG emissions and removals	National	3	19, 22
131	144	BNL-PAM-0091	Administrative Agreement on Zero Emission buses	Single		Decarbonisation: GHG emissions and removals	Local	3	19
132	145	BNL-PAM-0106	Administrative Agreement on Zero Emissions Transport Specific Groups	Single		Decarbonisation: GHG emissions and removals	Local	3	19
133	146	BNL-PAM-0168	Subsidy Scheme Zero Emission Company Cars	Single		Decarbonisation: GHG emissions and removals	National	3	19
134	147	BNL-PAM-0171	Subsidy Scheme R&D Mobility Sectors	Single		Research, innovation and competitiveness	National	3	16, 17, 18, 19, 20, 21, 22, 23, 24
135	148	BNL-PAM-0172	Subsidy for electric taxiing aviation	Single		Decarbonisation: GHG emissions and removals	National	3	16, 18, 23, 24
136	149	BNL-PAM-0173	Subsidy Scheme for the Sustainability of Inland Navigation Vessels	Single		Decarbonisation: GHG emissions and removals	National	3	16, 18, 24
137	150	BNL-PAM-0174	Subsidy Scheme Sustainable Shipbuilding	Single		Decarbonisation: GHG emissions and removals	National	3	16, 18, 23, 24

	B	C	D	E	F	G	H	I	J
138	151		Measures to compensate for the high energy prices	Single		Energy Security	National	2	15
139	152		Price cap from January 1 to December 31, 2023	Single		Energy Security	National	2	15
140	153		Allowance for Energy Costs Scheme (TEK)	Single		Energy Security	National	2	15
141	154		Temporary production cap coal fired power plants	Single		Decarbonisation: GHG emissions and removals	National	1	3
142	155		Subsidy Scheme for Sustainability for Owners' Associations	Single		Energy efficiency	National	2	10

	B	C	D	E	F	G	H	I	J
143	156		Temporary subsidy scheme for shore power seagoing vessels	Single		Decarbonisation: GHG emissions and removals	National	3	18, 21, 23
144	157		Group of policy measures for Electricity	Group	6, 22, 37, 65, 69, 80, 108, 109, 154		National	1	
145	158		Group of policy measures for Built Environment	Group	15, 17, 21, 29, 33, 38, 49, 42, 49, 50, 51, 52, 54, 66, 68, 71, 77, 97, 99, 100, 101, 106, 110, 111, 155		National	2	
146	159		Group of policy measures for Industry	Group	61, 62, 81, 124, 125		National	1,2,4,5	
147	160		Group of policy measures for Agriculture	Group	7, 9, 10, 18, 35, 57, 58, 63, 79, 83, 102, 126, 127, 128, 129, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142		National	1,2,6	
148	161		Group of policy measures for Land use	Group	47, 64, 130		National	7	
149	162		Group of policy measures for Mobility	Group	3, 26, 30, 34, 37, 41, 43, 70, 72, 84, 85, 89, 103, 104, 105, 143, 144, 145, 146, 147, 148, 149, 150, 156		National	3	
150	163		National Programme for a Circular Economy (NPCE)	Framework		Decarbonisation: GHG emissions and removals	National	1, 2, 3, 4, 5, 6, 7, 8	29, 31, 57

	K	L	M	N	O
1					
2					
3					
4	Quantified objective ⁽⁵⁾	Short description	Assessment of the contribution of the policy or measure to the achievement of the	Type of policy instrument ⁽⁶⁾	Union policy ⁽⁷⁾
5	M _{lap}	M	M	M	
6	No quantitative ex-ante objectives	Energy taxation scheme, introduced in 1996 as Regulatory Energy Tax (REB) and since 2004, after various changes, known as Energy Tax (EB). The objective of this policy is to boost energy savings by putting an incentive on reducing the consumption of gas and electricity, which should direct consumers toward more energy efficient behaviour. More recent CO2 reduction became more important, resulting e.g. in tariff shifts from electricity to gas. The energy tax is levied a.o. on electricity and natural gas, and the level depends on the level of energy consumption of a customer (degressive tariff structure). There are some exemptions and refund options (under conditions) e.g. for companies that participate in Long Term Agreements on energy efficiency. In 2013 a surcharge system (ODE) was introduced in order to cover expenditures resulting from the sustainable energy production scheme. Also this system differentiates between levels of energy use and between type of users (e.g. companies or dwellings). In 2020 through some shifts, the relative contribution to the ODE by dwellings was limited and that of many companies increased.		Fiscal	Not related
7	No quantitative ex-ante objectives	Deduction scheme from fiscal profits to promote investments in new energy efficient technologies. Entrepreneurs may deduct (under conditions) part of the investment costs through generic schemes, such as the KIA Kleinschaligheidsaftrek for certain small scale investments, but may also use EIA to deduct part of the investment in certain energy efficient equipment from their fiscal profits. Percentages vary over the years. Yearly a list is published with applicable technologies and criteria. Proposals can be submitted for techniques to be considered for, and if approved, included on the energy list. The equipment must save more energy than the prevailing equipment available on the market. This means that only the latest types of equipment are eligible for the EIA. Also a general EIA application can be submitted, using an energy-saving calculation to demonstrate that equipment that is not on the energy list meets EIA criteria. Since 2013/2014 as result of the Energy Agreement, the EIA focuses mainly on energy-saving technologies (for renewable energy options, companies are referred to other policies and measures). In 2020 also more attention for CO2 reduction other than energy related was introduced (if part of a broad CO2 reduction plan from companies).		Fiscal	Not related
8	No quantitative ex-ante objectives	The Dutch Eco Driving programme aims to increase energy efficiency from transport by training and awareness actions. It started in 1999 and is based on a long-term strategy. From 2010 (2nd phase) the implementation of the program was designated to the Institute for Sustainable Mobility (IVDM) for a period of four years in order to achieve a transfer of the program to the market. IVDM supports projects that have demonstrated the ability to save CO2 and provides information about saving CO2. As of 2015 (third phase) the programma is run entirely through non-governmental parties (without structural government finances and involvement). The programma currently being evaluated whether there will be a new campaign in the second half of 2021.		Information	Not related
9	No quantitative ex-ante objectives	The Gas Act from 2000 encompasses rules on transport and delivery of gas and implements also rules from EU directives on the internal EU energy market from 1998 (e.d. 98/30/EC and 2003/55/EC). The Act is regularly updated. In 2006 the act on Independent Grid management (in dutch: WON Wet onafhankelijk netbeheer) changed the gas (as well as electricity) act with rules to assure independency of the grid management. As of July 2018 the Gas Act changed to facilitate the approach towards districts/blocks that are free of natural gas connections. The obligations with regard to gas connections for new buildings changed and many new buildings will not have to receive a gas connection in future; this change applies to small users (max 40 m3 gas/hour) such as dwellings and smaller offices. Exceptions remain possible in important situations of common interest. The ACM (Autoriteit Consument en Markt) is charged with supervision on the Gas Act.		Regulatory	13
10	No quantitative ex-ante objectives	Small consumers are allowed to settle the amount of electricity returned to the grid with their (annual) consumption of electricity, as long as the amount of electricity returned to the grid is lower than or equal to their consumption taken from the grid. This is referred to as net metering, which stimulates the installation of PV-panels on roofs of homes. This measure has been implemented in the Electricity bill in 2004. It is intended to run until the end of 2024, then to be gradually phased out and stopped altogether per 2031. Solar panel owners can (under certain conditions) reclaim VAT on the investment in solar panels and their installation. The government plans to introduce a zero VAT rate for the supply and installation of solar panels on (or in the close proximity of) homes per 2023. After implementing this measure in 2023, solar panel owners (in many cases) no longer have to reclaim VAT. This reduces both the administrative burden of the solar panel owner and the workload of the tax authorities. The Dutch government therefore expects the reduction of the aforementioned administrative burden to lead to an increase in the use of solar panels.		Economic	Not related
11	No quantitative ex-ante objectives	The programme Greenhouse as an Energy Source is regularly transformed if e.g. new energy or climate agreements are concluded. Basically it is an innovation oriented programme. In 2014 it was accompanied e.g. by a long term agreement (Meerjarenspraak energietransitie glastuinbouw 2014 - 2020). Glastuinbouw Nederland and the Ministry are working together on this programme. With long term ambitions that the energy supply is fully sustainable and cost-effective by 2050, the ambition for 2020 is a maximum of 4.6 Mton of CO2 emissions, to be achieved by means of energy saving measures and the use of sustainable energy. This means -2.6% per year over the 2013-2020 period, as well as 11 PJ in additional energy-saving, as agreed to in the Energy Agreement. The Greenhouse as an Energy Source programme focuses on achieving these targets and ambitions. The programme is supported by various other (subsidy) schemes such as EG and MEI, described separately in overviews of PAMs.		Voluntary/negotiated agreements	Not related
12	No quantitative ex-ante objectives	The Market Introduction for Energy Innovations (MEI) subsidy scheme is intended for investments in innovative energy systems for greenhouses that reduce CO2 emissions and primary energy consumption. Investments in energy efficient innovative greenhouses can also be subsidised. In this respect there are specific requirements contained in the scheme. They must be innovative energy systems or innovative greenhouses that have only just been introduced. Depending on the type of investment, the subsidy amounts 30% or 40% .		Economic	Not related
13	No quantitative ex-ante objectives	The EG scheme on energy efficiency and renewable energy in horticulture offers companies active in greenhouse cultivation a subsidy of 25% for specific measures (contained in an annually-revised list) for increasing energy efficiency (or generating or using renewable energy), for which the maximum subsidy can differ per investment. Clusters of companies can also apply for a subsidy. The EG scheme has various predecessor (EHG, IMM and IRE)		Economic	Not related

	K	L	M	N	O
14	No quantitative ex-ante objectives	The Environmental Protection (or Environmental Management) Act and its implementation in an Activities Decree is a comprehensive set of legislation on environmental issues. It provides a legal base for environmental plans, environmental requirements and standards, permits, enforcement measures, decrees, etc. Many issues are detailed in the Activities Decree. These parts of the Environmental Act and decrees will be part of the Environmental Planning Act in 2023. Obligations differ per type of company and per type of environmental issue. A.o. it contains obligations with regard to energy efficiency (a.o. the Energiebesparingsplicht), obliging companies, non-residential buildings etc that consume in excess of 50 000 kWh of energy or 25 000 m3 of gas to adopt energy saving measures with a payback time of 5 years or less. The competent authority – mostly the local municipality – can enforce compliance. In 2015 a set of Recognised Lists of Measures (in Dutch: EML Erkende Maatregelenlijst) has been added to facilitate companies and enhance this obligation, while in 2019 also a method was incorporated on determining the paybacktime of energy efficiency measures and so reduce the space for discussion between the competent authorities and companies about measures they have to take. Regulations are updated regularly. Also regulations on (larger) combustion engines (on CH4 emissions etc.) are included in the Wm.		Regulatory	Not related
15	No quantitative ex-ante objectives	The Lower Value Added Tax on isolation measure started in 2009 and involves a reduced VAT rate on labour for work performed on housing for the purpose of energy saving. The reduced VAT rate is applicable to the labour component in the process of installing insulation material and (insulating) windows. The rate and conditions were adapted over the years. It started with options to apply a lower 9% rate on labour cost for some isolation works on floors, walls and roof of dwellings older than 2 years		Fiscal	Not related
16	No quantitative ex-ante objectives	The Green Deal approach is a framework instrument, consisting of a series of separate green deals concluded over the years. Green deals are voluntary agreements between parties in society and government to tackle specific obstacles in green growth related projects. Citizens, companies, local councils and stakeholder organisations are continually finding their own ways of being more energy efficient and sustainable, but may encounter obstacles that may require governmental assistance. In specific cases therefore covenants are agreed upon between parties and government to try to deal with these issues. Green deals involve sustainability projects and actions and may relate to energy, water, bio based economy, food, mobility, scarce resources, biodiversity, building practice and/or non-energy climate related issues. Each deal is a separate covenant, described more in detail on websites and, where applicable, in overviews of PAMs.		Voluntary/negotiated agreements	Not related
17	No quantitative ex-ante objectives	Persons with a mortgage who implement energy-saving measures in their own homes are able to borrow an increased sum for that investment. In this respect a mortgage provider can omit that portion of a mortgage that is used for energy saving measures (up to a sum of €9 000), when determining the financing charges (within the frame of the creditworthiness check). The scheme is updated yearly.		Other	Not related
18	No quantitative ex-ante objectives	The EBG is the Sectoral emission trading system in horticulture (in addition to the larger installations in the sector that have to participate under the EU ETS system). Greenhouse cultivation is the largest energy-consumer in the agriculture sector. To regulate CO2 emissions, a CO2 equalisation system has been set up for this sector. The ceiling for the system has been determined by the government in agreement with sector organisations. The introduction of a market price for CO2 encourages companies to invest in saving energy. The basis for the emissions is the gas consumption set off against heat and CO2 production. The CO2 price is based on the price in the ETS. All greenhouse cultivation companies, with exception of those participating in the EU-ETS (as of 2015, around 15) participate in this system. The CO2 equalisation system will not be linked to the EU-ETS.		Economic	Not related
19	No quantitative ex-ante objectives	The Top Sector Energy (TSE), one of the more broadly operating top sector approaches, works with a number of cooperative programmes and consortia ('TKIs') e.g. on off-shore wind, urban energy, new gas (incl.CCS) etc. Next to a general support based on planned R&D (via a TKI-toeslag and some theme specific schemes), it has additional supporting subsidy schemes such as DEI (demonstration projects), HER (renewable energy technologies) and the mission oriented MOOI		Economic	Not related
20	No quantitative ex-ante objectives	A revolving fund for heat projects and other sustainability measures for owner-occupants and homeowners' associations (Warmtefond, Heat Fund) has been set up to enable broad participation. It follows up on the earlier national energy loan fund possibilities (NEF). The terms and conditions for citizens were revised a number of times and owners' associations were also included in order to boost the fund. In total, since 2014, the Heat Fund has provided nearly €818 million in financing to home owners and homeowners' associations.		Economic	Not related
21	No quantitative ex-ante objectives	Reduced rate on energy taxes for local cooperations: under specific conditions the members do not have to pay energy tax over their own jointly produced electricity production in the first level (schijf) of energy consumption. Under the new climate agreement the scheme is as per 2021 replaced by a new subsidy scheme (the SCE)		Fiscal	Not related
22	No quantitative ex-ante objectives	The HER/HER+ aim to contribute at achieving climate related ambitions at less cost through subsidy for innovation projects. The HER subsidy scheme on renewable energy started in 2014 and was extended in 2020 with a number of other CO2 emission mitigation subjects and renamed to Energy Transition innovation scheme (HER+).		Economic	Not related
23	No quantitative ex-ante objectives	The SME Innovation Incentive in Top Sectors (MKB Innovatiestimulerend Regio en Topsectoren or MIT) is a subsidy schema to support R&D by SME related to the top sector approach. This applies to all domains and themes of the broad topsector approach (more broad than energy innovation). The Ministry (EZK) uses the MIT scheme to encourage SMEs to cooperate and innovate within this top sector. It encompasses various subschemes on MIT Knowledge vouchers, MIT Feasibilityprojects, MIT R&D cooperation projects, MIT Innovation brokerage and MIT Innovation networking. The scheme is implemented through the provinces		Economic	Not related
24	No quantitative ex-ante objectives	To complement the SDE+ scheme with a scheme for smaller renewable energy systems, the investment subsidy scheme ISDE was started in 2016. This was also a follow up of agreements under the Energy Agreement and intends to contribute also to reduce gas consumption for heating. Initially households and small commercial users could apply for an allowance for the purchase of heat pumps, biomass boilers, solar water heaters, pellet stoves and small wood-fired boilers. From 2020 the scheme was (also for reasons of limiting NOx and other emissions to air) limited to heat pumps and solar water heaters, while in 2021 also subsidy possibilities for various types of (added) isolation measures were included for dwellings.		Economic	Not related
25	No quantitative ex-ante objectives	The programme contributes to improving the energy efficiency from transport by training and raising awareness, as well as facilitating a diverse set of activities. As a consequence of actions under the eco-drive programme (HNR) and the Energy Agreements, a programme including a communication campaign was implemented promoting proper tyres purchase choice/pressure ('Choose the best tyre'), supported by website information, fact sheets and tips. The programme was evaluated in September 2016 and it was decided that in any event it would continue through to 2018. In 2019 a follow-up programme was started as a result of the governments reaction after the Urgenda court case.		Information	Not related

	K	L	M	N	O
26	Installed capacity of 4,450 MW in 2023 and 21,000 MW around 2030	A Wind Energy Roadmap was adopted as part of the Energy Agreement (2013). The roadmap outlines how the generation capacity of offshore wind energy is to be increased from 1,000 MW to 4,450 MW in 2023. In 2018 the roadmap was extended to 2030 (with ambition of 11000 MW in 2030). In 2022 the ambition was further extended to around 21,000 MW around 2030. The roadmap is a basis for (decisions on) tendering processes for new off shore wind parks. The extended Offshore Wind Energy Roadmap outlines where new wind farms will be built in the North Sea between 2024 and 2030. As support to further development of offshore wind, various ministries work together in an off-shore wind ecological research programma (Wozep) that started in 2016. Also a North Sea Agreement was concluded with other stakeholders on the integration of offshore wind energy into a more broad use of the Netherlands territorial part of the North Sea.		Regulatory	Not related
27	No quantitative ex-ante objectives	Owner-occupants and homeowners' associations have been able to apply for a subsidy since 2016 as a stimulus to extend energy saving measures. A subsidy, which comprises approximately 30% of the investment, will only be issued when at least two of the following energy saving measures are performed, under the conditions set out in the subsidy scheme: wall insulation, cavity wall insulation, roof insulation, floor or ground insulation and replacing windows with low-emissivity glass. When at least two energy saving measures are implemented under this requirement, the owner-occupier or owners' association can also receive an additional subsidy for further energy saving measures, such as insulating doors or customised ventilation. If ONE measure is applied in stead of two the subsidy percentage is approximately 15%. In order to stimulate taking more measures. The measures and associated requirements largely correspond to the measures and requirements for the National Heat Fund (Warmtefonds, formerly NEF) This means that the subsidy and loan can be combined to cover the entire investment. Since January 1st 2021, owner-occupants can apply under another scheme (see PAM on ISDE) for an investment subsidy for renewable energy and energy saving according to the above mentioned rules. As from January 1st 2023 the SEEH subsidy for owners associations will be called SVVE and will be easier to use.		Economic	Not related
28	No quantitative ex-ante objectives	In 2016 the Alternative Travel approach (Anders Reizen) started. Companies (are experimenting with travel options to reduce the greenhouse gas emissions. They have developed various best practices (e.g. increased travel-cost reimbursement for cycling to work, issue of a public-transport card, restrictions on (free) parking at the workplace, etc.). The government intends to increase support with e.g. communication activities.		Other	Not related
29	Ambition: reduction to zero of natural gas production in the Groningen field	The government aims to reduce the gas production in the Groningen field to zero over the coming years. The gas production is already well under 12 billion Nm3 levels, the safety level recommended by the State Supervision of Mines (Staatstoezicht op de Mijnen (SODM)). In the gas production year 2019-2020 production was 8,65 billion Nm3. The coming years it will be further reduced to zero in the Groningen field. Reason for the reduction is the seismic activity in the region.		Other	Not related
30	The programme works towards about 50% less use of primary resources (minerals, metals, fossil: to be specified further as part of the programme) in 2030	To ensure that in 2050 everyone has enough to eat and can buy the goods they need, like clothing and electrical devices, the economy needs to become circular, with basically no waste. To achieve this, the Government-wide Programme for a Circular Economy (RBCE), entitled 'A Circular Economy in the Netherlands by 2050', was presented to parliament in September 2016. The programme sets out what we need to do in order to utilise raw materials, products, and services in more efficient and smarter ways, thus enabling to realise the ambition - the Netherlands circular by 2050. In this transition, many parties participate: companies, governments, knowledge institutes, NGOs and many more. The government has selected 5 economic sectors and value chains that will be the first to switch to a circular economy. The agreement has further been worked out in 5 transition agenda and an implementation programme. The 5 economic sectors for which Transition Agenda's have been made in 2018 are: biomass and food, plastics, manufacturing industry, construction sector and consumer goods. In 2019, an Implementation Programme for a Circular Economy 2019-2023 was adopted that translates the 5 Transition Agendas (Biomass and Food, Plastics, Manufacturing Industry, Construction, Consumer Goods) to concrete actions and projects. The Circular Accelerator assist entrepreneurs in taking the next steps in the circular economy through information, inspiration, a broad network and expertise. Many links and overlaps exist with climate policy.		Other	Not related
31	No quantitative ex-ante objectives	The Housing Valuation System was changed on 1 July 2011 to included an appraisal system of the energy performance of the housing (on the basis of the energy label), to promote investments in energy-saving measures. The Housing Valuation System sets the maximum rent on the basis of the characteristics of the house. By including the energy label in the Housing Valuation System the maximum rent is linked to its energy label. The change to the Housing Valuation System came into effect on 1 July 2011 for dwellings with an energy label and for dwellings that must have an energy label under the regulations. A transitional period up to 1 January 2014 applied for dwellings that did not yet have an energy label; from 1 January 2014 the Housing Valuation System with an energy label applies to all rental homes. As of 1 October 2015 the Housing Valuation System was amended further: the WOZ (Valuation of Immoveable Property Act) value was preferred as a basis for the rental sum, marking the end of the planned evaluation, immediately after the conclusion of the transition period.		Other	Not related
32	No quantitative ex-ante objectives	The DKT-Transport subsidy scheme supports demonstration projects for sustainable transport solutions, not yet on the market, but with good potential business case en possibilities. It aims at solutions with low or zero CO2 emissions e.g. electric transport, efficient ships, hydrogen in transport, biofuels for air and watertransport as well as heavy road transport.		Economic	Not related
33	No quantitative ex-ante objectives	The Guaranteed Loans for Agriculture (Borgstelling Landbouw or BL) facility in 2017 replaced the earlier Agriculture Guarantee (Garantstelling Landbouw or GL) and it allows the government to act as guarantor for a part of a bank loan. The BL is faster and has a wider scope than the GL. The bank makes the application, and the maximum guarantee has been increased, while more types of investments may now also fall under this facility. For innovative investments (in greening stables or greenhouses) extra guarantees can be obtained. Under specific conditions, extra facilities may be applied e.g. for starters (lower provision) and for companies that due to the corona crisis need temporary extra (bridging) loans.		Economic	Not related
34	Ambition: some 700000 users in 2021	The Green Deal on Car sharing II (a follow up of an earlier first deal on car sharing) is an agreement between a broad coalition of providers of car sharing, leasing companies, insurance companies, municipalities, businesses, interest groups as well as the national government, to join forces with the aim to expand the car sharing concept and implementation. The ambition was to increase and extent the network upto some 100 000 cars in 2021 and some 700 000 users. The goal of 700.000 users was reached in 2020. In 2019/2020 extra communication support was planned by the government as response also to the Urgenda court ruling. There is also a similar agreement (City Deal) specifically on the sharing of electric cars.		Voluntary/negotiated agreements	Not related
35	No quantitative ex-ante objectives	This pilot programme is basically an experimental programme with some pilot areas to feed experiences and know how into the included knowledge exchange programme aimed to support a structured, area-specific approach with the ambition of making many neighbourhoods free of natural gas. Such area-specific approaches are delegated to municipalities themselves. Housing associations have an important role to play in driving the transition forward. Their housing stock includes a large number of comparable housing types, which offers good potential for scaling up the efforts to make housing more sustainable. Based on the experiences of this experimental programme, later a more full scale approach is intended to be planned. Includes subsidies		Economic	Not related
36	No quantitative ex-ante objectives	Following up earlier agreements a.o. in energie & climate agreements, municipalities have to elaborate transition visions on heat (including the transition to natural gas free areas/neighbourhoods). A subsidy support scheme for external advices (EAW) and a supporting knowledge centre (Expertise Centrum Warmte ECW) support municipalities with expertise and guidance preparing their transition visions on heat and the related implementation plans. The ECW also informs the target group in energy market issues and aquathermal and geothermal heat options.		Other	Not related

	K	L	M	N	O
37	No quantitative ex-ante objectives	The new Environment and Planning Act (Omgevingswet) is combining and modernising the various related legislation in the fields of the environment, nature and spatial planning (living environment). The Act and supporting decrees will contain much of the legislation from present act and decrees on these subjects, e.g. the Environmental Protection Act and its decrees. The new Act has been adopted by Parliament in 2016; however its operationalisation and introduction still is ongoing. Implementation is foreseen in 2023. It provides for integration of regulations for, among other things, spatial planning, nature, water and the environment which will improve the legal support for an integrated and area-oriented approach to the living environment. Regular updates of the regulations will be implemented, when appropriate. A planned update under one of the decrees (on buildings) concerns new regulations to enable more sustainable use of roofs. This is recently made available for public consultation. Also, a National Strategy on Spatial Planning and Environment (NOVI) is included as instrument.		Regulatory	Not related
38	Ambition: include besides various aspects on improving conditions for reductions, for inland shipping for 2024 a reduction of 20% CO2 emissions relative to 2015 and a reduction of 10% of other harmful substances.	This deal aims to reduce greenhouse gas emissions as well as other harmful emissions to the air (NOx, SOx, particle matter) from the involved shipping sectors. The national government, provinces, port authorities, maritime sector organisations, shippers, transport companies, banks, and research institutes are joining forces to promote sustainability in the shipping sectors. Inland shipping is a topic under the new climate agreement. Agreements with the sector on greenhouse gas reductions will form part of this green deal. Though not under the climate agreement, also the sea transport sector will be included under the deal.		Voluntary/negotiated agreements	Not related
39	No quantitative ex-ante objectives	This Sustainability scheme Reduction Landlord charges for Housing Associations (RVV) scheme provides fiscal incentives for housing associations in the social housing sector, that aim to improve the energy performance of the dwellings.		Economic	Not related
40	No quantitative ex-ante objectives	The national policy framework alternative fuels infrastructure (AFI) (Nationaal beleidskader alternatieve brandstoffen) is the Dutch implementation of the Alternative Fuels Infrastructure Directive (2014/94/EU). This framework sets out various infrastructure deployment targets, as well as technical and market specifications to ensure interoperability and consumer information. This instrument also allows for enforcement if these technical requirements are not met. The NAL (Nationale Agenda Laadinfrastructuur) is written following the requirements from the AFID directive on a policy framework. The NAL is a multi-year policy agenda, supported by a broad coalition of parties, formulating ambitions and planned actions, also based on the Climate Agreement. The ambition is that the charging infrastructure will not form an obstacle in deployment of electric transport. The agenda includes actions on infrastructure coverage, strategic extension (before actual demand emerges), accessible information on locations and tariffs, smart charging infrastructure etc.		Planning	21
41	Ambition: part of a more broad package of PAMs, with reduction ambitions as those mentioned under the Climate Act	Climate Agreement: in the Netherlands parties from many segments of society, as well as governments negotiated a new climate agreement as framework for actions in the Netherlands, aimed at achieving 2030 green house gas reductions ambitions. The government has outlined its policies in a letter to parliament in June 2019 in response to a draft climate agreement, attached to the letter. Many parties have meanwhile signed, many actions are started, some are still further elaborated or negotiated. The full extent of climate policy impacts and steering is part of the obligations under the Climate Act and the periodic Climate Plans.		Voluntary/negotiated agreements	Not related
42	No quantitative ex-ante objectives	In the Climate Agreement of 2019 a hydrogen related programme is planned. After presenting a governments vision to parliament in March 2020 a national programme has been initiated. This will primarily aim at developing the supply of 'green' hydrogen, developing the required infrastructure and cooperation with sectoral programmes, and facilitating ongoing initiatives and projects. Als synergy between infrastructure and use of hydrogen will be enhanced. More specific actions and instruments (or use of already existing ones) is to follow. The programme partners have started a website for the programma and early 2021 started joint elaboration of a working programme.		Voluntary/negotiated agreements	Not related
43	Ambition: part of a more broad package of PAMs, working towards realisation of the ambition to produce some 35TWh renewable energy ('on shore') in 2030.	The coordination between the regional implementation (regional energy strategies) and implementation (main energy system) will take place in the inter-administrative programme NP RES (the National RES Programme). Local and regional authorities and the national government will remain responsible for the use of their own range of instruments. In this program, Regional Energy Strategies (RES) are being developed. These include the regional implementation approach for agreements made on a national level in the new planned climate agreement (with focus on wind and solar, the required infrastructure and regional demand and supply of sustainable heat sources). The RES are being developed in a country wide program of some 30 regions in which all provinces and municipalities participate, together with regional stakeholders. The agreement is that the regions supply their final RES1.0 mid-2021 in view of realization of the ambitions before 2030.		Planning	Not related
44	No quantitative ex-ante objectives	The climate agreement mentions a possible ambition for the peat meadow areas in the Netherlands of a CO2-eq reduction of 1 Mt by 2030. The "Key Points for a Climate Agreement" set out the technical potential of a number of measures, such as underwater drainage. Knowledge development will have to indicate what measures will be effective regarding achieving the ambition of 1 Mt of CO2-eq in reduction. The actual combination of measures that is required to realise this ambition will be determined on that basis and will be realised on an area-specific level. The parties will jointly monitor the progress and effectiveness of the measures. Based on these results, there will be multiple opportunities a year for parties to discuss whether interim adjustment of the measures or ambitions may be necessary. A Peat areas plan has been developed and a national research programme has started (2019). Also pilot projects are initiated (partially already supported under other activities and instruments).		Research	Not related
45	Ambition: the Climate Act calls for a 49% reduction in greenhouse gas emissions by 2030, compared to 1990 levels	The Climate Act was agreed by Parliament in June 2019. It calls for a 49% reduction in greenhouse gas emissions by 2030, compared to 1990 levels, and ambitions for a 95% reduction by 2050. The Act should give individuals and companies in the Netherlands more certainty about the climate goals.		Regulatory	Not related
46	No quantitative ex-ante objectives	The introduction of legal energy performance standards is planned, consisting of ambitions for 2030 and a standard for 2050. Also owners develop roadmaps with actions as to how to transform their (portfolio of) buildings towards these standards		Regulatory	Not related
47	No quantitative ex-ante objectives	In the climate agreement, the introduction of energy performance standards has been announced, to be based on a 'sensible' assessment of heat consumption needs, cost and benefits etc. First it would involve non-mandatory target values, but by 2050 the intention is that standards would become mandatory for rental housing		Regulatory	Not related
48	No quantitative ex-ante objectives	A subsidy scheme for sports facilities supports investment in accommodation of sport clubs. It has a more broad character than climate related investments, but since 2019 also explicitly includes energy measures (energy saving and renewable energy). Up to 2018 such energy measures were supported by a separate scheme (EDS)		Economic	Not related

	K	L	M	N	O
49	No quantitative ex-ante objectives	Through the RRE (2019) and RREW (2021) schemes, municipalities may launch projects to stimulate house owners to implement small energy saving measures e.g. for improving heating installations/isolation (control, radiator folium, isolation, etc.). Municipalities may also use the scheme for providing advice to owners on other energy saving measures e.g. roof-, window- or facade-isolation. The RRE was running in 2019. In 2021 a renewed scheme (RREW) opened, now also including the involvement of tenants (in 2019 still excluded)		Economic	Not related
50	Ambition: part of a package of PAMs with a.o. the ambition to have 1.5 miljoen dwellings made more sustainable (with regard to energy use and supply) by 2030	The block-by-block approach is not a separate PAM but a structured, area-specific approach underlying some other PAMs (e.g. on Heat Transition Visions and the pilots on natural-gas-free neighbourhoods). It involves owners of buildings and inhabitants in making the neighbourhood more sustainable. This block/neighbourhood scale seems very suitable for introducing alternatives to natural gas systems. Municipalities are in the lead and have to describe in what neighbourhoods they plan to implement the approach at what time in their visions on heat transition (TvW). The national government intends to take care of timely availability of a legal framework for a further block-by-block approach.		Other	Not related
51	No quantitative ex-ante objectives	The government undertakes a multi-annual public campaign on climate-change ('lederen doet wat'), that aims to stimulate citizens to undertake sustainability oriented measures and provide suggestions for this. Also campaigns on electric transport are included		Information	Not related
52	No quantitative ex-ante objectives	To further support enforcement of energy saving measures under the Environmental Protection Act, the parties to the 2013 Energy Agreement have added a mandatory system for the relevant companies of informing the competent authority on measures taken (article 2.15 of the Decree). This notification obligation was due through an RVO website application before July 1st, 2019 and subsequently it has to be updated every four years. Companies participating to the energy covenants did not have to comply to this system, since they have alternative information duties. The Recognised Lists of Measures (in Dutch: EML Erkende Maatregelenlijst), introduced earlier, are to be used as starting point for reporting on the type of measures taken. Failure to comply may result in financial penalties. Additional funding has been made available to enhance enforcement by local authorities (VUE and SPUK). In 2023, the legal basis will be changed to the new Environmental Planning Act. The obligation to investigate and report on energy savings measures will be extended to include companies with an environmental permit and/or participating in the EU ETS.		Regulatory	Not related
53	Ambition: part of a package of PAMs with a.o. the ambition of an additional 0,5 Mton carbon capture (mentioned in the climate agreement).	Through smart and sustainable management of agricultural soils, CO2 capture may be enhanced. The government together with other parties develop measures toward a sustainable management of all agricultural soils by 2030 a.o. through a national programme		Research	Not related
54	No quantitative ex-ante objectives	In the Climate Agreement, organisations have agreed upon developing measures aiming to reduce food waste in food production and consumption chains, as well as to help consumers to waste less food and improve a better balance between sustainable, healthy, safe and affordable food, as well as a proper balance between animal and vegetable proteins in the human diet. To be worked out further.		Other	Not related
55	No quantitative ex-ante objectives	The energy innovation demonstration subsidy scheme (DEI) is expanded as much as possible from a scheme specifically for energy savings and renewable energy production to a scheme that supports all carbon emissions reduction options, in line with the scope of the Integrated Knowledge and Innovation Agenda (IKIA) that is established under the Climate Agreement. It will also encompass options for system integration (incl. hydrogen) and for a more sustainable use of resources (circular economy).		Economic	Not related
56	No quantitative ex-ante objectives	Following a.o. the shift towards more mission oriented innovation policies by the Rutte 3 coalition agreement, an Integrated Knowledge & Innovation Agenda (IKIA) has been developed in 2019 (with the intention is 5 yearly updates) as support to innovation approaches. The IKIA formulates five missions that contribute to a deep emission reduction of greenhouse gases by 2050, respectively directed towards a CO2-emission free electricity generation, buildings and transport, climate neutral industry and agriculture/nature. For 2030, intermediate targets are formulated for each mission. The innovation needs for attaining these targets are subsequently formulated in 13 innovation programmes (MMIPs). These will serve as the basis for supporting subsidy instruments such as TSE, DEI and HER.		Research	Not related
57	No quantitative ex-ante objectives	The VEKI subsidy scheme offers subsidy possibilities for investment projects in emission reduction technologies in industry that have passed development and demonstration, but still have high investment demands and pay back times in excess of 5 years. Eligible projects include e.g. investments related to energy efficiency, recycling of waste, local infrastructure and/or other CO2 reduction technologies.		Economic	Not related
58	Ambition: part of a more broad package of PAMs, working with the ambition of further reduction by industry of some 14,3 mton CO2 by 2030.	Integrated approach through developing programmes for 5 specific regional industrial clusters (and a 6th cluster with participating other industries), including the 12 largest emitting companies (big-12) as front runners. The integrated approach aims at projects on greenhouse gas reduction and improved sustainable use of resources and will include aspects such as joint learning, coordination for infrastructural aspects (grids for electricity, hydrogen, heat, etc.), synergy through and with regional transition programmes, joint permit and/or subsidy scheme approaches etc. The inclusion of the big-12 should deliver extra 'pull and support' for the programmes. Preparations are ongoing and the implementation of the CES is planned for 2021.		Other	Not related
59	No quantitative ex-ante objectives	The subsidy scheme on replacement of fertilizers and manure processing is considered for some 10 years starting from 2021/2022 with a view on the ambitions regarding climate and nitrogen emissions. Through high grade processing of manure from intensive livestock farming the ambitions are to reduce greenhouse gas and ammonia emissions and better tuning the fertilization to the needs of soil and crop. The scheme has to fit in with the climate agreement and the EU Nitrate directive. The scheme is still under design and consideration.		Economic	Not related
60	No quantitative ex-ante objectives	The ministry (LNV) has developed together with local governments (provinces) a joint forest strategy. This follows up on the climate agreement that includes intentions of parties on forestation and prevention of deforestation; it includes agreements on extension of nature reserve area, restoration of landscape structures, limiting reforestation and planting of new trees. Existing forests, nature areas, landscapes and public space offer possibilities to enhance CO2 storage. Also public space for infrastructure and agricultural soils offer options, e.g. in combining ambitions on biodiversity, spatial quality, urbanisation and recreation. Furthermore CO2 storage may be enhanced through improved applications/cascading within the chains of wood, grass clippings and other natural materials from the green areas in public space. The strategy and agenda were presented to parliament in November 2020.		Planning	Not related
61	Termination by 2030 of coal fired electricity production in the Netherlands	The Rutte-3 government included in its coalition agreement the plans to phase out coal fired electricity plants by 2030. This was worked out in a letter to parliament in May 2018. Of the 5 Dutch plants, two older plants have to close down already earlier. In the period before, plant owners may enable their plants to use other fuels, such as sustainable biomass. Later on (letter of March 2019), because of the Urgenda law case, the government decided to close down the first plant (Hemweg) even earlier, by the end of 2019.		Regulatory	Not related
62	Ambition: part of a more broad package of PAMs, working on improvement of energy efficiency of some 100 000 houses in the social housing (rental) sector	The starter motor approach encompasses a first larger scale uptake aiming at bundled, combined improvement of energy efficiency of some 100 000 houses in the social housing (rental) sector, through connection to heat networks and/or application of heat pumps. The larger scale approach aims also at gaining experiences with such a more integrated approach (innovation, contracting methods, etc.) as well as first cost reductions. This will be done through the social housing corporations and the government. A subsidy scheme (see under SAH), started in 2020, supports the actions		Economic	Not related

	K	L	M	N	O
63	No quantitative ex-ante objectives	As of 2020, the SDE+ grant scheme (the scheme to stimulate the production of renewable energy by subsidizing the as yet not-profitable part of system exploitation) is expanded to also stimulate other techniques that reduce greenhouse gas emissions. Its focus shifts towards greenhouse gas reduction in general, instead of renewable energy only and its name to SDE++. In 2021 and following years, other techniques are added to the SDE++ and from 2023 onwards, a flexible reservation will be made for certain energy domains with a higher subsidy intensity ("fences"). In the 2022 round there is a cap of 35 TWh (production in 2030) for onshore renewable energy and a cap of 7,8 Mton (total CO2-reduction in 2030) for CCS projects.		Economic	Not related
64	No quantitative ex-ante objectives	The SAH scheme offers subsidy options for connecting existing rental housing to an external heat network. It is part of the broader starter motor approach, that encompasses a first larger scale uptake aiming at bundled, combined improvement of energy efficiency of some 100 000 houses in the social housing (rental) sector.		Economic	Not related
65	No quantitative ex-ante objectives	Tthe previous government of Rutte-3 and the climate agreement, announced its plans to introduce a gradually increasing minimum national CO2 price for CO2 emissions from electricity production, such in addition to the EU-ETS. This should contribute to investments that are less harmful to the environment. As of the 5th of April 2022 the legislation has entered into force.		Economic	Not related
66	No quantitative ex-ante objectives	The Ministry of Infrastructure and Water Management started a stimulation scheme on LNG (Liquefied Natural Gas). This has to replace a temporary possibility for tax facilities for LNG, that expired by the end of 2018. It offers some subsidy options for sales of LNG fuel to road freight transport to stimulate the use of LNG by road transporters. The scheme follows up planned actions in the Climate Agreement and requests by parliament to offer solutions for LNG and bio-LNG.		Economic	Not related
67	No quantitative ex-ante objectives	In order to provide a better service information to residents and building owners in the consultation, implementation and financing stages of the renovation of the house/building, a digital platform was launched by Milieucentraal and the government, designed to ensure better alignment of supply and demand in relation to implementing sustainability in homes. This will involve existing initiatives being streamlined as much as possible to ensure uniformity of the information provided.		Information	Not related
68	No quantitative ex-ante objectives	SEPP includes subsidy options for consumers that want to buy full electric passenger cars (small or compact classes) for private use. There are options both for new and used cars.		Economic	Not related
69	No quantitative ex-ante objectives	An innovation oriented subsidy scheme for entrepreneurs that in cooperation want to develop new products, processes, services or businessmodels to make a substance/product chain more circular and use less natural resources and/or less CO2 emissions. After the project the new product/service/etc. is to be introduced on the market.		Economic	Not related
70	No quantitative ex-ante objectives	The MOOI innovation oriented subsdie scheme aims at development of integrale solutions working towards a CO2 free electricity system, a CO2 free built environment and/or climate neutral resources/products/processes that are at least 80% " circular" . It concerns multidisciplinary R&D and feasibility studies by consortia of various parties.		Economic	Not related
71	Ambition: mandatory requirement by 2023	The energy label of a building indicates the energy performance. As part of the further intensification of the measures agreed in the Energy Agreement, it was arranged in 2016 that offices are required to have a minimum energy label C by 2023.		Regulatory	Not related
72	No quantitative ex-ante objectives	Through the Clean Air Agreement, signed in early 2020, the national and local governments have signed a covenant to improve the quality of air in the Netherlands with the goal of reducing negative health impacts by 50% by 2030 relative to 2016. The participating provinces and municipalities receive support for their implementation plans which contain various measures for polluting sectors (e.g., inland shipping, agriculture, wood-fired heating, mobile machinery, industry, etc.). Though not specifically aimed at greenhouse gases it will likely have an impact on relevant emissions (ammonia, NOx, emissions from wood and others). Specific actions under the Clean Air Agreement will be gradually added and intensified.		Voluntary/negotiated agreements	Not related
73	No quantitative ex-ante objectives	This buy-out scheme aims at targeted approach and buy out by provinces (decentral governments) of NOx intensive livestock farms (on voluntary basis) close to nature reserve areas that may suffer from NOx depositions.		Economic	Not related
74	No quantitative ex-ante objectives	This subsidy scheme, in place as of 2021, which is the follow-up of the fiscal Postal code area cooperative project subsidy scheme, stimulates projects of (local) energy cooperatives for local production and use of electricity via solar PV, wind of water power on land. Installations and participants should be in the same and/or adjacent postal codes. The production of renewable energy is subsidized, using a similar approach as in the SDE++.		Economic	Not related

	K	L	M	N	O
75	Ambition: part of a more broad package of PAMs, working with the ambition of further reduction by industry of some 14,3 mton CO2 by 2030.	A tax is targeted at industrial installations subject to the EU ETS, waste incinerators and facilities emitting large amounts of nitrous oxide (N2O), that are not covered under the EU ETS. Industrial Installations will have to pay a carbon tax, if their emissions exceed their baseline based on EU ETS benchmarks and a national reduction factor needed to reach the emission target of 14.3 Mton CO2/e in 2030. Emissions below this baseline are exempted and are allocated dispensation rights. The tax rate starts at 30 Euros/tCO2e in 2021 and increases with 10,56 Euros/tCO2e annually, for each year between 2021-2030 up to 125 Euros/tCO2e in 2030. ETS installations can deduct the ETS price from the tax rate. The methodology, set-up of the system and the tax rate have been investigated by PBL. The system is implemented legally by januari 2021.		Economic	Not related
76	No quantitative ex-ante objectives	In its vision on "Agriculture, nature and food: valuable and connected" the ministry describes its longer term vision on developments towards more circular agricultural practices. In such a circular system, arable farming, livestock farming and horticulture primarily use raw materials from each other's supply chains and waste flows from the food industry. Circular chains may be within a company, at local level, within the Netherlands or across national borders. This will contribute towards improving biodiversity as well as circular economy and climate policies. Given the urgent need to decrease nitrous oxide depositions, for the short term a conversion programme for livestock farmers is being set up (with intended start of the first schemes in 2021) to accelerate extensification of the subsector also by offering demonstration/pilot projects as well as subsidy schemes for farmers that want to change to less intensive and more sustainable practices.		Economic	Not related
77	No quantitative ex-ante objectives	A subsidy scheme is being proposed by the central government for voluntary ending of NH3 intensive livestock farms all across the Netherlands (more broad than a similar system for farms close to nature 2000 areas, described under a separate PAM).		Economic	Not related
78	No quantitative ex-ante objectives	As of 2024 the government intends to introduce a levy on truck traffic. This will be applied to dutch and foreign trucks of more than 3500 kg, based on the kilometer distance and roads used. The revenues will be used for innovation and for more sustainable road traffic. Relevant parties will be involved in decisions on re-investing the revenues. The act to implement the Heavy goods vehicle charge is in preparation.		Economic	Not related
79	No quantitative ex-ante objectives	The BPM is a one-off tax that must be paid when a car, motorcycle or light goods vehicle is registered in the Netherlands for the first time. The amount is determined a.o. by the car's CO2 emissions; BPM is not charged for electric cars. CO2 emission figures for each type of vehicle are listed in the register kept by the vehicle registration authority (RDW Rijksdienst voor het wegverkeer). In addition, when a vehicle is registered on name of an owner, the owner has to pay motor vehicle tax (MRB). The height of this tax depends on e.g. the type of vehicle, weight, fuel, environmental characteristics and region. It is intended that upto 2024 no MRB has to be paid for full electric cars and in 2025 a 75% reduced rate applies. For PHEV's a 50% reduced rate applies up until 2025. A further fiscal measure includes a reduced rate on income tax for private use of business cars.		Fiscal	Not related
80	No quantitative ex-ante objectives	The Green investment schema is a tax incentive scheme, enabling individual investors to put money into green projects that benefit nature and the environment. Individuals who invest in a green fund or save money with financial institutions practicing 'green banking', receive a lower rate than the market interest rate, however this is compensated by a tax incentive. In return, the banks charge green projects a lower interest rate. Banks require a certificate for applicable green investment projects. The objective of the scheme is to encourage projects that have a positive impact upon nature and the environment, but that do not come into being as a result of their low yield or high risk. The scope of the scheme covers new – and hence risky – but not yet standard technology and methods that will protect the environment.		Fiscal	Not related
81	No quantitative ex-ante objectives	Entrepreneurs may deduct part of the investment costs through generic schemes (such as the KIA Kleinschaligheidsaftrek for certain small scale investments), but may also use MIA and Vamil for certain environmental investments. The Environmental Investment Allowance (MIA Milieu Investerings Aftrek) and Random Depreciation of Environmental Investments (VAMIL Vrije Afschrijving Milieuinvesteringen) are two related deduction schemes from fiscal profits to promote investments in new environmental technologies. It gives a direct financial advantage to certain companies that invest in applicable equipment. Entrepreneurs may deduct part of the investment costs for such equipment from their company's fiscal profits. Both schemes use a common list, called the Environment List (Milieulijst), which lists all equipment (combined, almost 400 items) eligible for the MIA and/or VAMIL. A new Environment List is released every year. This list also contains a large array of equipment for greenhouse cultivation and measures that promote a circular economy		Fiscal	Not related
82	No quantitative ex-ante objectives	Municipalities, provinces, energy producers, the national government and the business community concluded a covenant for zero-emission cleaning vehicles at the beginning of 2019. From 2025, the cleaning industry will only purchase vehicles on sustainable fuel or zero-emission vehicles. From 1 January 2030, all newly purchased cleaning vehicles will be emission-free at the exhaust.		Voluntary/negotiated agreements	
83	No quantitative ex-ante objectives	System Integration (SMCES) is a subsidy scheme for research and/or development of innovative products and services that ensure that the future energy system is safe, reliable and affordable. The scheme is for network operators, knowledge institutions and companies.		Economic	Not related
84	No quantitative ex-ante objectives	The Subsidy Scheme for the Sustainability and Maintenance of Rental Properties offers private landlords or institutional investors the opportunity to apply for a subsidy to make their regulated rental properties more sustainable.		Fiscal	
85	Aims at 60%, but at least 55%, emissionreduction by 2030 compared to 1990	The draft policy program contains the elaboration of the climate policy from the Coalition Agreement and contains the main points of the climate policy for the next 10 years – aimed at achieving the (announced) tightened goals from the Climate Act. The draft policy program is an addition to the Climate Plan from 2020, which was based on the Climate Agreement. The draft program includes policy measures for all sectors. The consultation process started in June 2022.	In line with the ambition of net-zero emissions by 2050	Planning	Not related
86	No quantitative ex-ante objectives	The new Subsidy Scheme for sustainable social real estate (DUMAVA) helps owners of existing social real estate to pay the costs of making them more sustainable. You can receive a subsidy for energy advice, an energy label and sustainability measures. For owners of social real estate and parties involved in making social real estate more sustainable (such as schools, government buildings, healthcare institutions or national monuments).		Economic	Not related
87	No quantitative ex-ante objectives	A joint bill of the Ministries of Economic Affairs and Climate (EZK) and the Interior and Kingdom Relations (BZK) and contains amendments to the Gas Act and the Environment Act. The bill gives municipalities the power to draw up local rules for the heat transition from natural gas to sustainable alternatives. On the basis of this legislative proposal, municipalities can instruct the network operators to cut off districts designated in the environmental plan from natural gas. The bill is therefore also the final piece of the district-oriented approach.		Regulatory	

	K	L	M	N	O
88	No quantitative ex-ante objectives	For all new construction, both residential and non-residential, the permit applications must comply with the requirements for Nearly Zero Energy Buildings (NZEB) since 1 January 2021. These requirements arise from the Energy Agreement for sustainable growth and from the European Energy Performance of Buildings Directive (EPBD).		Regulatory	
89	No quantitative ex-ante objectives	With the Subsidy Module Agricultural Business Advice and Education, an entrepreneur can apply for a voucher or subsidy. This is aimed at learning about sustainable agriculture, switching to extensive, nature-inclusive, circular or organic agriculture. A subsidy can also be applied for by entrepreneurs who want to train farmers in more sustainable business operations or for tailor-made business advice to a farmer.		Fiscal	
90	No quantitative ex-ante objectives	The Scheme Specific Benefit Zero Emission Buses 2022-2024 is a benefit that the central government provides to local authorities. The benefit is intended for 13 Public Transport authorities. They are responsible for granting concessions for public transport by bus, tram and metro. This means that they grant permits to operate regional public transport for a certain period (concession). Provinces and municipalities, whether or not collaborating in transport regions, act as executive grantors of concessions.		Fiscal	
91	No quantitative ex-ante objectives	The scheme is aimed at construction companies established in the Netherlands that have their own equipment and companies that rent out construction equipment: construction equipment, auxiliary functions and construction vehicles.		Fiscal	
92	No quantitative ex-ante objectives	The Zero-Emission Trucks Purchase Subsidy Scheme is for entrepreneurs and non-profit organizations that want to buy or financial lease a new, completely emission-free (emission-free) truck.		Fiscal	
93	No quantitative ex-ante objectives	In addition to energy performance requirements for new builds, there are also requirements for refurbishments and renovation. This is a summary of the legal requirements for renovation in the Building Decree.		Regulatory	
94	No quantitative ex-ante objectives	Subsidy scheme to help SMEs save energy and become more sustainable. With the subsidy, an advisor can be hired for tailor-made energy advice and for support in implementing one or more measures from that advice. This subsidy scheme is for SMEs up to 250 employees (FTEs) and an annual turnover of up to €50 million, which: have 1 or more business premises or rent business premises (or space therein) and; are not subject to the statutory energy saving obligation. The business premises may therefore not consume more than 25,000 m3 of natural gas (equivalent) and 50,000 kWh of electricity per year.		Fiscal	Not related
95	No quantitative ex-ante objectives	The Act that regulates production, transport and distribution of electricity. The Act is regularly updated; in 2006 e.g. the act on Independent Grid management (in dutch: WON Wet onafhankelijk netbeheer) changed the electricity (as well as gas act) with rules to assure independency of the grid management, aimed at fair market competition on supply and sales.		Regulatory	
96	NA	Through a North Sea Agreement, parties want to achieve the basis for development of a Strategic Agenda 2030 and a National Northsea Programme 2022-2027, that combines various interests in developing the sea, including nature, fisheries, shipping, wind parks etc. The increase of off shore wind parcs is one of the reasons this intended agreement is mentioned in the Climate Agreement decisions from june 2019.		Voluntary/negotiated agreements	Not related
97	No quantitative ex-ante objectives	The Buidling Decree from 2012 is the basis for legal requirement in building s with regard to safety, health, energy, environment, etc. It contains a.o. requirements for connections to gas, electricity, water, etc, as well as requirements with regard to ventilation, environmental performance (MPG) and energy performance (EPC). Energy performance certificates (EPCs) for buildings show how energy-efficient homes, offices and hospitals are. An EPC is mandatory when homes and other buildings are put up for sale or rent or when construction is completed		Regulatory	Not related
98	No quantitative ex-ante objectives	With this support scheme, provinces may apply for financial support to offer subsequently possibilities for smaller owners of social real estate in their provinces in their efforts to make the buildings more sustainable. The programme aims to help in 'unburdening' them in this transition.		Economic	Not related
99	No quantitative ex-ante objectives	The Heating Act [Warmtewet], which entered into force on 1 January 2014, sets a national maximum rate for the supply of heat via smart heat grids, and describes the rights and responsibilities of consumers and heat suppliers. Amendments to the Decree on the Energy Performance of Buildings and the Regulation on the Energy Performance of Buildings have resulted in more clearly-defined provisions in relation to the inspection of installations and the energy labels for buildings.		Regulatory	Not related
100	No quantitative ex-ante objectives	The scheme DEI+ Circular economy offers subsidy for projects on recycling and re-use of waste, repair, use of biobased resources with CO2 reduction (for biobased resources only pilot projects are possible). The final product has to comply with requirements from the 'Single Use Plastics'- directive).		Economic	Not related
101	No quantitative ex-ante objectives	The Programme Main Energy Infrastructure (PEH) has the ambition to arrange the required space and possibilities for the national energy infrastructure, based on an integrated assessment with other interests and ambitions, including the living environment and the international contexts. In may 2020 the ministry (EZK) presented an initial memo on the start and development of the programme to parliament. The programma focusses on the entire national energy infrastructure and has relations with the NP RES programme on regional energy strategies and the programme on infrastructure for a sustainable industrie (PIDI) (see separate PAM descriptions for further details)		Planning	Not related
102	No quantitative ex-ante objectives	The subsidy scheme is an extension of the precursor HER, through extension from renewable energy only to other CO2 reduction. It aims to contribute at achieving climate ambitions at less cost through innovation projects.		Economic	Not related

	K	L	M	N	O
103	0.1Mt CO2 in 2030	An integral package which is aimed at supporting recycling initiatives at different levels of technological readiness through subsidies.		Economic	Not related
104	No quantitative ex-ante objectives	A policy aimed at the reduction of CO2 emissions and the use of raw materials in construction through the use of recycled materials.		Regulatory	Not related
105	No quantitative ex-ante objectives	Old refrigerators and freezers could be handed in for recycling, after which participants received 35 euros as compensation.		Economic	Not related
106	General aim: 75% of textiles produced are reused or recycled in 2030, various other percentages for 2025-2030 and for reuse and recycling.	Producers are made accountable for the reuse and recycling of the textiles they produced.		Regulatory	Not related
107	No quantitative ex-ante objectives	In the context of the energy transition, sufficient capacity must be available on the gas and electricity grid in time to facilitate the increasing demand for transport on the grid from renewable energy installations. Under the Electricity and Gas Act (amended in the Energy Transition Progress Act), grid operators must draw up biennial investment plans for the grids they manage, in which all necessary expansion and replacement investments are described for the coming ten years. The Netherlands Authority for Consumers and Markets (ACM) monitors and assesses the investment plans. TenneT, the designated Transmission Service Operator (TSO) for the high-voltage grid (wholly owned by the Dutch Ministry of Finance), and GTS, the owner of the national gas transportation grid, together with the regional grid operators (Coteq, Enduris, Enexis, Liander, Rendo, Stedin, Westland Infra) developed a set of scenarios with data from the available transition plans so that a comparable basis is used in all investment plans for expected developments in the Dutch energy market. In the investment plans, grid operators indicate where bottlenecks are anticipated and what type of replacement and expansion needs to take place at the national and regional level (such as the laying of cables, transformers, switching fields and/or substations). For example, TenneT is expected to invest between EUR 10 and 13.6 billion in the period 2022-2031 in expanding the national high-voltage grid and replacing end-of-life-cycle high-voltage stations. In addition, investments are going towards innovations to make more intensive use of the existing grid and new developments such as the storage and use of hydrogen. Together, the investment plans provide a detailed overview of the (expected) work on the Dutch gas and electricity network for the coming ten years.		Economic	Not related

	K	L	M	N	O
108	No quantitative ex-ante objectives	<p>Through the National Growth Fund the Dutch government has earmarked € 20 billion for the period 2021-2025 for project investments in the fields of 'knowledge development' and 'research, development and innovation' which have the highest potential for structural and durable economic growth. These fields are subdivided into a number of themes, of which 'Energy and sustainable development' is of particular relevance.</p> <p>The National Growth Fund is an initiative of the Ministry of Economic Affairs and Climate Policy and the Ministry of Finance. Collectively, these Ministries manage the fund on behalf of the government. An independent advisory committee assesses the projects and issues recommendations to the government about the project grants. The fund supports projects in various sectors. For example, the 'Groenvermogen II' project ("Green Power II"; to which €500 million has been made available so far) is aimed at the accelerated scaling up of green hydrogen production by realizing electrolysis facilities of at least 100 MW and stimulating innovation in various industrial chains such as aviation fuels, steel and fertilizers. 'Nieuwe Warmte Nu! ('New Heat Now!'; €200 million allocated) is aimed at accelerated construction of sustainable collective heating networks with great scaling-up potential for homes or glasshouses as an alternative to natural gas. Another example is 'Zero emission inland shipping, battery-electric' (€ 50 million), aimed at making inland shipping more sustainable by means of a relatively low-cost 'pay per use' system relying on exchangeable battery containers with green energy, charging stations and technical support.</p>		Economic	Not related
109	No quantitative ex-ante objectives	Invest-NL is a private company financed with public funds and will be active in the commercial market. As an impact investor, the aim is to make the Netherlands more sustainable and innovative. The shareholder is the Ministry of Finance. The shareholder has appointed a supervisory board that supervises the management of Invest-NL.		Economic	Not related
110	No quantitative ex-ante objectives	In April 2022, the Dutch government started a national campaign under the name 'Flip the switch' to encourage households and entrepreneurs with practical saving tips to save energy in the short term. To help people insulate their homes, the cabinet is introducing the National Insulation Program to tackle poorly insulated rental and owner-occupied homes quickly and intelligently.		Information	Not related
111	No quantitative ex-ante objectives	Innovation in the chemical sector can contribute to making society more sustainable, reducing CO2 and the growth of the circular economy. The GoChem program supports SMEs in the broad chemistry and chemical processing industry with green innovation. The KIEM GoChem support scheme supports collaboration projects between one (or more) SME(s) and one or more knowledge institutions (universities of applied sciences, universities and knowledge institutions). In a KIEM GoChem project, exploratory research is carried out in the context of sustainable chemistry, or in line with the Multi-Year Mission-Driven Innovation Program (6, 7 and 8 of Mission Industry).		Research	Not related
112	No quantitative ex-ante objectives	The Sustainable Industry Infrastructure Program (PIDI) focuses on accelerating decision-making in the energy infrastructure of national importance for the timely sustainability of basic industry in the Netherlands (focus on 2030 with a view to 2050). PIDI allows all relevant stakeholders to participate: ministries, basic industry, energy producers, local authorities and infrastructure companies. PIDI includes a Multi-Year Program Infrastructure Energy and Climate (MIEK), in which stakeholders make agreements about the main infrastructure for sustainable industry (in the clusters) and projects with national importance, including regional projects with consequences for the national energy system, are discussed. This concerns the infrastructure for H2, CO2, electricity, heat, gas and the circular economy. Cluster Energy Strategies (CES) and a safehouse are also used for secure exchange of relevant data for the program. The MIEK is based on an exploration in 2020 by a Taskforce Infrastructure Climate Agreement Industry (TIKI)		Planning	Not related
113	No quantitative ex-ante objectives	Integral approach towards reduction of ammonia and methane through measures in stables, encompassing two types of subsidy schemes, one for innovation and one for stimulating investments.		Economic	35
114	No quantitative ex-ante objectives	Recognized producer organizations can draw up an operational plan in which they include activities to make and improve the fruit and vegetable production of their members. They can receive a subsidy for this through the Common Market Organization Fruit and Vegetables. This is a European regulation that each member state implements and implements itself. RVO implements the Common Market Organization Fruit and Vegetables.		Fiscal	
115	No quantitative ex-ante objectives	The subsidy for the remediation of pig farms (Srv) was originally intended for pig farms that cause odor nuisance in the concentration areas East (I) and South (II) of the Fertilizers Act.		Fiscal	
116	No quantitative ex-ante objectives	The Interim Environmental Ordinance is a merger of various regulations at provincial level with regard to the physical living environment		Regulatory	
117	No quantitative ex-ante objectives	The Environmental Ordinance is a merger of various regulations at provincial level with regard to the physical living environment		Regulatory	
118	No quantitative ex-ante objectives	The aim of the measure is to reduce nitrogen emissions and improve nature.		Voluntary/negotiated agreements	
119	No quantitative ex-ante objectives	The agreement is to gradually reduce the crude protein content in the dairy feed ration at sector level in the coming years to a maximum of 160 gr RE/kg ds in 2025.		Voluntary/negotiated agreements	
120	No quantitative ex-ante objectives	This buy-out scheme aims at targeted approach and buy out by provinces (decentral governments) of NOx intensive livestock farms (on voluntary basis) close to nature reserve areas that may suffer from NOx depositions		Voluntary/negotiated agreements	
121	No quantitative ex-ante objectives	The Nitrates Directive aims to reduce water pollution caused or induced by nitrates from agricultural sources and to prevent further such pollution.		Regulatory	

	K	L	M	N	O
122	No quantitative ex-ante objectives	Development of low-methane concentrates with a lower emission factor		Research	
123	No quantitative ex-ante objectives	The aim of this subsidy is to develop and roll out integrated, source-oriented emission-reducing measures in both existing and new stables.		Voluntary/negotiated agreements	
124	No quantitative ex-ante objectives	A subsidy scheme for investments in calf barns will be open in September 2019 for welfare-friendly floors and ammonia-reducing systems		Fiscal	
125	No quantitative ex-ante objectives	This is for the economic recovery of the agricultural sector and rural areas after the coronavirus outbreak		Fiscal	
126	No quantitative ex-ante objectives	The derogation will gradually be phased out in the period 2023-2026.		Regulatory	
127	No quantitative ex-ante objectives	The Netherlands is obliged to designate nutrient-contaminated areas before 1 January 2024. Similar to the red areas in Germany. In these areas an accelerated phase-out derogation applies and stricter nitrogen application standards (total nitrogen) from 2025.		Regulatory	
128	No quantitative ex-ante objectives	In the first years, the Netherlands reimbursed farmers who, despite the phasing out, continue to participate in the derogation. This encourages grassland use and prevents large-scale tearing.		Economic	
129	No quantitative ex-ante objectives	compensation for measures to raise groundwater levels in peat meadow areas and for extensification and more grazing in transition areas N2000		Fiscal	
130	No quantitative ex-ante objectives	Parties develop, at least upto January 2020, activities to accelerate the process towards Zero Emission City Logistics. One of the actions is to develop and implement Living Labs on Zero Emission City Logistics per municipality of region. Based on the resulting advice the parties want to scale up the feasible forms of Zero Emission City Logistics (in the period 2020-2025), with the ultimate ambition to practice, by 2025, cost effective zero emission city logistics with all type of vehicles deployed for city logistics within the participating cities.		Voluntary/negotiated agreements	Not related
131	No quantitative ex-ante objectives	Voluntary agreement together with 14 transport authorities (administrative agreement) to enhance that, from 2025, all new buses must be free of harmful exhaust emissions.		Voluntary/negotiated agreements	Not related
132	No quantitative ex-ante objectives	More than 30 municipalities, along with several industry representatives have signed an administrative agreement (and accompanying covenant) calling for zero-emissions transport for transport organised by participants for specific target groups (people with certain disabilities) in the Netherlands by 2025 The most recent version of the agreement was published on 31 May 2018.		Voluntary/negotiated agreements	Not related
133	No quantitative ex-ante objectives	Subsidy scheme for emission less company cars (SEBA), offering possibilities at sale of financial lease of new zero emission vehicles for entrepreneurs and for non-profit organisations. Intended to be implemented until the end of December 2025.		Economic	Not related
134	No quantitative ex-ante objectives	The R&D Mobility Sectors scheme offers a subsidy for an R&D mobility project. The R&D Mobility Sectors (RDM) subsidy scheme is for companies working in the automotive, aviation and maritime sectors to support R&D investments in research and development projects, which are under strong pressure due to the corona crisis.		Fiscal	
135	No quantitative ex-ante objectives	Electric taxiing means that aircraft do not have to use kerosene to travel from the runways to the gates and from the gates to the runways. A pilot is currently taking place at Schiphol. Based on this, it is checked whether the technology is adopted. If electric taxiing is introduced, the government wants to stimulate this with a subsidy from 2024		Fiscal	
136	No quantitative ex-ante objectives	Inland skippers can apply for a subsidy to invest in a new, clean engine and/or catalytic converter. The aim of this scheme is to improve air quality and reduce CO2 and nitrogen emissions from vessels. The following types of engines are eligible for subsidy: IWP, IWA and NRE. The SCR type is suitable for a catalytic converter. Subsidies for noise-dampening measures are also possible under certain conditions, if these are linked to the installation of the new engine or catalytic converter. Another possibility: electric drive train on the propeller shaft. The scheme consists of two budget components, i.e. for engines and electric powertrains (until October 2023 only) or catalytic converters.		Fiscal	
137	No quantitative ex-ante objectives	The Sustainable Shipbuilding Subsidy Scheme (SDS) is intended for shipyards that wish to carry out a shipbuilding innovation project that contributes to sustainable development. The subsidy amounts to 25% of the eligible costs. The scheme aims to stimulate innovation and sustainability in the maritime sector, reduce innovation risk and accelerate the market introduction of new technology. This concerns technology aimed at: reducing harmful emissions, reducing noise levels, a sustainable life cycle of the ship, systems and materials and sustainable deployability of the ship and her crew. The maximum subsidy amount per applicant or group to which it belongs is 30% of the subsidy ceiling applicable for this subsidy. For 2017 this is €1,380,000.		Fiscal	

	K	L	M	N	O
138	No quantitative ex-ante objectives	<p>The Dutch government is taking various measures to partly compensate for the sharp increase in the energy bill of households and companies. Households with a low income also receive an extra one-off energy allowance of approximately € 1,300. And they get help to save energy.</p> <p>Measures for all households: approximately € 545 discount for an average energy consumption</p> <p>1. Lower energy tax on electricity The rate for energy tax in 2022 is € 0.057 (excluding VAT) per kWh lower than in 2021. As a result, you pay € 0.0368 (excluding VAT) in energy tax per kWh you consume. The amount of discount you receive therefore depends on your energy consumption. You will see this measure as an 'energy tax' on your energy supplier's annual statement.</p> <p>2. Higher energy tax refund The energy tax refund has been increased from approximately €560 to €785 in 2022. This means that all households will receive an additional €225 (including VAT) discount. This is a fixed discount, which does not depend on your energy consumption. You will see this measure on your energy supplier's annual statement as a 'reduction in energy tax'.</p> <p>3. Lower VAT on natural gas, electricity and district heating From 1 July to 31 December 2022, the VAT on energy (natural gas, electricity and district heating) has been reduced from 21% to 9%. The lower VAT rate applies to all parts of the energy bill that have to do with the supply of energy. For example, also administration and network management costs.</p> <p>Extra measures for low-income households Households with an income around the social minimum receive extra support to compensate for the high energy prices: Energy surcharge of approximately € 1,300 People who earn a maximum of € 1,310.05 (single person) or € 1,871.50 (cohabitant) per month are entitled to the energy allowance of approximately € 1,300.</p> <p>Contribution to energy costs for students Students are not eligible for the energy allowance of approximately €1,300. Students who run into serious financial problems or are at risk of getting into serious financial problems due to the sharply rising energy prices may qualify for an allowance towards the costs.</p> <p>Help with saving energy Municipalities will receive €300 million to help residents in poorly insulated houses save energy. For example by: an energy saving advice; vouchers that allow residents to purchase energy-saving products; energy boxes with draft strips, radiator foil and LED lamps.</p>		Fiscal	
139	No quantitative ex-ante objectives	<p>Energy bills for households and small businesses must be reduced. That is why the government wants people to temporarily pay a maximum price for gas and electricity with an average energy consumption. The government is currently working out the plan and expects to have it completed by the end of November. Some of the content is already known. The government's plan is that all small consumers of energy up to a certain consumption will not pay more than a maximum price. The purpose of this is to reduce their energy bills. Small consumers do not have to do anything for this themselves. The price ceiling applies from January 1, 2023 to December 31, 2023. With the arrival of this price ceiling, the VAT reduction on energy will expire on January 1, 2023.</p> <p>Small-scale consumers are subject to the price ceiling Small consumers include anyone with a small energy connection. For example, households, the self-employed, small businesses and associations. The building with the connection must be intended for living or working. For example, a home, office or cafe. For example, the price ceiling does not apply to a garage box with a separate connection and its own energy contract.</p> <p>Anyone who consumes more energy than the maximum numbers pays the rate from the energy contract for consumption above the limit. Anyone who has a contract with rates that are lower than the maximum price of the price ceiling, pays the rate from the contract. No one is therefore more expensive because of the price ceiling.</p> <p>The temporary price cap applies to both temporary and permanent contracts.</p> <p>Status of the plans The cabinet is working out the plans for the price ceiling and will then submit them to the House of Representatives and the Senate.</p>		Fiscal	
140	No quantitative ex-ante objectives	<p>The TEK is based on the energy consumption and turnover of an entrepreneur. The compensation then consists of a part of the cost increase this year and in 2023. Energy-intensive SMEs will then receive support in the amount of a to be determined percentage of the increase in the energy price (gas and electricity) multiplied by their energy consumption to a fixed amount. set maximum per company (subsidy ceiling). Just like households, smaller offices and self-employed workers can make use of the temporary price ceiling, the so-called small-scale consumer scheme.</p> <p>Conditions and structure of TEK clear in the short term</p> <p>The government expects to be able to announce the conditions of the TEK in terms of target group, the total budget, the percentages and the maximum support per company in the short term. Such a scheme must comply with European state aid rules and be approved by the European Commission. As a result, actual opening through the Netherlands Enterprise Agency (RVO) may last until the beginning of 2023.</p> <p>That is not enough for energy-intensive SMEs that are already in acute problems and still have the winter of 2022/2023 to go. That is why the aim is to have other measures ready from November to be able to (temporarily) reduce operating expenses for entrepreneurs. The cabinet is working out the options for this as soon as possible.</p>		Fiscal	
141	CO2-cap of 35% of the maximum CO2 emissions in the coal fired power plants	In december 2021, after a legislative process that started in 2020, it was announced that per 1 januari 2022 a legislative CO2-cap for coalfired power plants would be introduced, in order to reduce CO2-emissions in the electricity sector. This measure was in reaction to the Urgenda ruling and therefore temporary (period 2022-2024). In June 2022 the maximum percentage was abolished to ensure enough gas will be available in coming winter.		Regulatory	Not related
142	No quantitative ex-ante objectives	<p>The Subsidy Scheme for Sustainability for Owners' Associations (SVVE) is for (mixed) homeowner associations, housing associations and housing cooperatives. This subsidy helps you make your building more sustainable for example, by taking energy-saving measures or purchasing a heat pump.</p> <p>The SVVE consists of 3 parts for which you apply for a separate subsidy. The 3 parts are: - Subsidy for energy advice - Subsidy for sustainability measures - Subsidy for charging point advice</p>		Fiscal	

	K	L	M	N	O
143	No quantitative ex-ante objectives	<p>Temporary subsidy scheme for shore power seagoing vessels</p> <p>This regulation is intended for natural or legal persons established in the Netherlands who intend to install a shore power supply in a Dutch seaport for the energy supply of seagoing vessels.</p> <p>This scheme has 2 purposes.</p> <ul style="list-style-type: none"> - Reducing nitrogen deposition (the precipitation of nitrogen) on nitrogen-sensitive and nitrogen-overburdened Natura2000 areas and for spatial developments that make use of the Nitrogen Registration System (SSRS). - Reducing noise and improving air quality by encouraging the construction of shore power facilities in Dutch seaports for the energy supply of seagoing vessels. 		Fiscal	
144					
145					
146					
147					
148					
149					
150	No quantitative ex-ante objectives	Developing a National Programme for the circular economy which includes relevant policies and targets. Follow up of the RBCE.		Other	Not related

	P	Q	R	S	T	U	V	W	X	Y	Z
1											
2											
3	Measures which resulted in the implementation of the PaM		Status of implementation ⁽⁹⁾	Implementation		Entities responsible for implementing the policy ⁽¹⁰⁾		Indicators used to monitor and evaluate progress over time			Update since last submission ⁽¹²⁾
4	Other	Relevant provision ⁽⁸⁾		Start	Finish	Type	Name	Description	Year	Value	
5	Miap		M	M	Miap	M		Miap			M
6			Implemented	1996	Tbd	National government	Ministry of Finance (FIN)		Indicators : year		
7			Implemented	1997	Tbd	National government	Ministry of Economic Affairs and Climate (EZK)/Ministry of Finance (FIN)/Netherlands Enterprises Agency (RVO)/Belastingdienst	Saved energy (m3 gas eq.)		572 million m3 gas-eq.	
8			Implemented	1999	Tbd	Companies/businesses /industrial associations, Other	Instituut voor Duurzame Mobiliteit (IvDM)		2019		
9			Implemented	2000	Tbd	National government	Ministry of Economic Affairs and Climate (EZK)				
10			Implemented	2004	2030	National government, Companies/businesses /industrial associations	Ministry of Economic Affairs and Climate (EZK), Electricity suppliers	Installed capacity in MWp (households)	2020	13 petajoule	Amendments, implementation or design changes and extension of an on-going measure
11			Implemented	2005	Tbd	National government, Companies/businesses /industrial associations	Ministry of Agriculture (including Nature and Food Quality/LNV), Glastuinbouw Nederland				
12			Implemented	2007	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)/Netherlands Enterprises Agency (RVO)				
13			Implemented	2007	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)/Netherlands Enterprises Agency (RVO)				

	P	Q	R	S	T	U	V	W	X	Y	Z
14			Implemented	2008	Tbd	National government	Ministry of Infrastructure and Water Management (I&W)				
15			Implemented	2010	Tbd	National government	Ministry of Finance (FIN)				
16			Implemented	2011	Tbd	National government, Companies/businesses /industrial associations, Other	Ministry of Economic Affairs and Climate (EZK)/Various ministries, Various intermediaries				
17	Broadening mortgage loan options as a result of energy saving measures		Implemented	2011	2030	National government	Ministry of the Interior and Kingdom Relations (BZK)				
18			Implemented	2011	2030	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)/Netherlands Enterprises Agency (RVO)				
19	Subsidies for energy technology innovation in various sectors and type of technologies		Implemented	2012	Tbd	National government, Companies/businesses /industrial associations, Research institutions	Ministry of Economic Affairs and Climate (EZK)/Various ministries, Various enterprises, Various research institutes				Continuation of existing measures/no significant updates
20			Implemented	2014	2030	National government, financial institutions	Stimuleringsfonds Volkshuisvesting (SVn), an indepent non-profit foundation				
21			Expired	2014	2021	National government	Ministry of Finance (FIN)				Abolition/termination/completion of measure
22			Implemented	2014	2020	National government	Ministry of Economic Affairs and Climate Policy (EZK); Netherlands Enterprises Agency (RVO)				Abolition/termination/completion of measure
23			Implemented	2014	Tbd	National government, Provinces	Provinces				Continuation of existing measures/no significant updates
24			Implemented	2015	2030	National government	Ministry of Economic Affairs and Climate Policy (EZK); Netherlands Enterprises Agency (RVO)				Amendments, implementation or design changes and extension of an on-going measure
25			Implemented	2015	2021	National government, Other	Ministry of Infrastructure and Water Management (I&W, Intermediaries)				

	P	Q	R	S	T	U	V	W	X	Y	Z
26			Implemented	2015	2030	National government	Ministry of Economic Affairs and Climate (EZK)/Netherlands Enterprises Agency (RVO)	Installed capacity (MW offshore)	2030	21000	Amendments, implementation or design changes and extension of an on-going measure
27			Implemented	2016	2022	National government	Ministry of the Interior and Kingdom Relations (BZK)/Netherlands Enterprises Agency (RVO)		2020		Amendments, implementation or design changes and extension of an on-going measure
28	A mix of types of measures (pledges, best practices etc.) to stimulate more sustainable transport		Implemented	2016	2030	Companies/businesses /industrial associations, Other	Various, Various intermediaries				
29	Government decision		Implemented	2016	Tbd	National government	Ministry of Economic Affairs and Climate Policy(EZK)				
30			Implemented	2016	2023	National government, Companies/businesses /industrial associations, Other	Ministry of Infrastructure and Water Management (I&W)/Various ministries, Various, Various intermediaries				Amendments, implementation or design changes and extension of an on-going measure
31	Including value of energy saving measures in rent calculation a an option		Implemented	2016	Tbd	National government	Ministry of the Interior and Kingdom Relations (BZK)				Continuation of existing measures/no significant updates
32			Implemented	2017	2021	National government	Ministry of Infrastructure and Water Management (I&W)				
33			Implemented	2017	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)/Netherlands Enterprises Agency (RVO)				
34			Implemented	2018	2021	National government, Other	Ministry of Infrastructure and Water Management (I&W), Various intermediaries				
35	Though more broad, economic is chosen since it includes subsidy options for pilots in practical situations with practices on participation and implementation		Implemented	2018	2030	National government, Local government	Ministry of the Interior and Kingdom Relations (BZK), Municipalities				
36	Developing strategies by municipalities, including subsidy options for advice and assistance		Implemented	2018	2030	National government	Ministry of the Interior and Kingdom Relations (BZK), Municipalities				

	P	Q	R	S	T	U	V	W	X	Y	Z
37			Implemented	2016	Tbd	National government, Local government	Ministry of the Interior and Kingdom Relations (BZK), Provinces/Municipalities				
38			Implemented	2019	2024	National government, Other	Ministry of Infrastructure and Water Management (I&W), Various intermediaries				
39			Implemented	2019	Tbd	National government	Ministry of the Interior and Kingdom Relations (BZK)/Netherlands Enterprises Agency (RVO)				
40			Implemented	2019	2030	National government	Ministry of Infrastructure and Water Management (I&W)	Integral indicatoren charging stations: number [#]		Integral outcome: number [63,568] (Explanation: the number of regular (semi-)public electric charging stations increased with 28% reative to 2019 to 63,568)	
41			Implemented	2019	2030	National government, Local government, Companies/businesses /Industrial associations, Other	Ministry of Economic Affairs and Climate (EZK)/Various ministries, IPO (Interprovinciaal Overleg)/VNG (Vereniging van Nederlandse Gemeenten), Various , Various intermediaries	Included under Klimaatwet	2020		
42			Implemented	2019	2030	National government, Research institutions	Various ministries, CSWW platform				
43			Implemented	2019	2030	National government, provinces and local governments	Provinces/Municipalities				Monitoring information, update on progress or impact assessment results
44			Implemented	2019	2030	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)				
45			Implemented	2019	2050	National government	Ministry of Economic Affairs and Climate (EZK)/Various ministries	GHG emission reduction (% relative to base year)			
46			Implemented	2022	2050	National government	Ministry of the Interior and Kingdom Relations (BZK)		2018		
47			Planned	2021	2050	National government	Ministry of the Interior and Kingdom Relations (BZK)				
48			Implemented	2019	2023	National government	Ministry of Health, Welfare and Sports (VWS)/Dienst Uitvoering Subsidies aan Instellingen (DUS-I)				

	P	Q	R	S	T	U	V	W	X	Y	Z
49			Implemented	2019	Tbd	National government, Local government	Ministry of the Interior and Kingdom Relations (BZK), Provinces				
50	Constitutes an approach for working block-by-block in a broader programme encompassing a series of policies and measures (listed elsewhere in this overview)		Implemented	2019	2030	National government	Ministry of the Interior and Kingdom Relations (BZK)				
51			Implemented	2019	Tbd	National government, Other	Various ministries, Milieucentraal				
52			Implemented	2019	Tbd	National government	Ministry of Infrastructure and Water Management (I&W)				
53			Implemented	2019	2030	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)				
54	Instrument(s) to be worked out further		Planned	2019	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)				
55			Implemented	2019	Tbd	National government	Various ministries, Netherlands Enterprises Agency (RVO)				Continuation of existing measures/no significant updates
56			Implemented	2019	2030	National government, Research institutions	Various ministries, Netherlands Enterprises Agency (RVO)				Amendments, implementation or design changes and extension of an on-going measure
57			Implemented	2019	Tbd	National government	Ministry of Economic Affairs and Climate (EZK)[National government]/Netherlands Enterprises Agency (RVO)				
58	A cooperative instrument is being considered, though preparations are still ongoing		Planned	2020	Tbd	National government	Ministry of Economic Affairs and Climate (EZK) ,Various				
59			Planned	2022	2030	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)/Netherlands Enterprises Agency (RVO)				
60			Implemented	2020	2030	National government, Local government	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
61			Implemented	2020	2030	National government	Ministry of Economic Affairs and Climate (EZK)				
62			Implemented	2020	2023	National government	Ministry of the Interior and Kingdom Relations (BZK)/Netherlands Enterprises Agency (RVO)				

	P	Q	R	S	T	U	V	W	X	Y	Z
63			Implemented	2020	2025	National government	Netherlands Enterprises Agency (RVO)	Installed capacity (MW), renewable energy production, CO2-emission reductions			Amendments, implementation or design changes and extension of an on-going measure
64			Implemented	2020	2023	National government	Ministry of the Interior and Kingdom Relations (BZK)/Netherlands Enterprises Agency (RVO)				
65			Implemented	2022	Tbd	National government	Ministry of Economic Affairs and Climate (EZK)				Commencement/enforcement of a measure/programme
66			Implemented	2020	2021	National government	Ministry of Infrastructure and Water Management (I&W)				
67			Implemented	2020	Tbd	National government	Ministry of the Interior and Kingdom Relations (BZK)				
68			Implemented	2020	2025	National government	Ministry of Infrastructure and Water Management (I&W)/Netherlands Enterprises Agency (RVO)	Integral indicatoren electric cars: number [#], share [%]		Integral outcome: number [292,630], share [2,3%] (Explanation: it concerns totals in the Netherlands of BEV/FCEV/PHEV together: in 2020 there were some 43% more electric cars than in 2019. In total these were 292,630. Of all passenger cars in the Netherlands in 2020 some 3,2% were electric, while in 2019 this was 2,3%)	
69			Implemented	2020	2030	National government	Ministry of Infrastructure and Water Management (I&W)/Netherlands Enterprises Agency (RVO)		2020		
70			Implemented	2020	Tbd	National government	Various ministries, Netherlands Enterprises Agency (RVO)				Continuation of existing measures/no significant updates
71			Implemented	2020	2023	National government	Ministry of the Interior and Kingdom Relations (BZK)				
72			Implemented	2020	2030	National government, Local government	Ministry of Infrastructure and Water Management (I&W), Municipalities/Provinces				
73			Implemented	2020	2021	National government, Provinces	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
74			Implemented	2021	2030	National government	Ministry of Economic Affairs and Climate (EZK)	Installed capacity (MW), production per year (MWh), number of projects (#)	2021-2030		Commencement/enforcement of a measure/programme

	P	Q	R	S	T	U	V	W	X	Y	Z
75			Implemented	2021	2030	National government	Ministry of Economic Affairs and Climate (EZK)				
76			Planned	2021	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)				
77			Planned	2021	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
78			Planned	2024	Tbd	National government	Ministry of Infrastructure and Water Management (I&W)				
79			Implemented	1995 (of eerder)	Tbd	National government	Ministry of Finance (FIN)	Integral indicatoren electric car sales: share [%]		Integral outcome: number [20,5%] (Explanation: concerns zero emission cars. Almost 1 of every 4 sold new passenger cars in 2020 were electric, the larger part being zero-emission (20,5%)).	
80			Implemented	1995 (of eerder)	Tbd	National government, Other	Ministry of Infrastructure and Water (I&W)/Ministry of Finance (FIN)/Netherlands Enterprises Agency (RVO)/Tax Agency/Financial institutes		2020		
81			Implemented	1995 (of eerder)	Tbd	National government	Ministry of Infrastructure and Water (I&W)/Ministry of Finance (FIN)/Netherlands Enterprises Agency (RVO)/Belastingdienst				
82			Implemented	2019	2030	Companies/businesses/industrial associations					
83			Implemented	2020	Tbd	National government	Ministry of Economic Affairs and Climate Policy, Netherlands Enterprises Agency (RVO)				Amendments, implementation or design changes and extension of an on-going measure
84			Implemented	2022	2025	National government	Netherlands Enterprises Agency (RVO)				
85			Planned	2022	2030	National government	Various	GHG emission reduction (% relative to base year)		55% reduction compared to 1990	
86			Implemented	2022	2024	National government	Ministry of the Interior and Kingdom Relations (BZK)	GHG emission reduction (relative to base year)	2024	0,2 Mton	
87			Planned	2024	Tbd	National government	Ministry of the Interior and Kingdom Relations (BZK), Ministry of Economic Affairs and Climate (EZK)				

	P	Q	R	S	T	U	V	W	X	Y	Z
88			Implemented	2021	0	National government	Ministry of the Interior and Kingdom Relations (BZK)		2030		
89			Implemented	2022	0	National government	Netherlands Enterprises Agency (RVO)				
90			Implemented	2022	2023	National government	Netherlands Enterprises Agency (RVO)				
91			Implemented	2022	2026	National government	Netherlands Enterprises Agency (RVO)				
92			Implemented	2022	0	National government	Netherlands Enterprises Agency (RVO)				
93			Implemented	2020	0	National government	Ministry of the Interior and Kingdom Relations (BZK)				
94			Implemented	2021	2022	National government	Netherlands Enterprises Agency (RVO)				
95			Implemented	1998	Tbd	National government	Ministry of Economic Affairs and Climate (EZK)				Amendments, implementation or design changes and extension of an on-going measure
96			Implemented	2022	2030	National government	Various ministries [National government], Intermediaries [Other]				Commencement/enforcement of a measure/programme
97			Implemented	2012	Tbd	National government	Ministry of the Interior and Kingdom Relations (BZK)				
98			Implemented	2020	2025	National government	Netherlands Enterprises Agency (RVO)				
99			Implemented	2014	Tbd	National government	Ministry of Economic Affairs and Climate (EZK) and other ministries [National government]				
100			Implemented	2019	2020	National government	Ministry of Infrastructure & Water [National Government], Netherlands Enterprises Agency (RVO) [National government implementing entity]				Abolition/termination/completion of measure
101			Planned	2020	Tbd	National government	Ministry of Economic Affairs and Climate (EZK)				
102			Planned	2020	Tbd	National government	Ministry of Economic Affairs and Climate Policy, Netherlands Enterprises Agency (RVO)				Continuation of existing measures/no significant updates

	P	Q	R	S	T	U	V	W	X	Y	Z
103			Planned	2023	2030	National government	Ministry of Infrastructure and Water Management (I&W)	Parties that have received subsidies will report on the resulting reductions in raw materials consumed and emissions emitted.	2026		Drafts, announcements, commitments, planned measures, discussions for a new measure
104			Planned	2023	2031	National government	Ministry of Infrastructure and Water Management (I&W)	Yearly assessments based on various metrics	2024		Drafts, announcements, commitments, planned measures, discussions for a new measure
105			Implemented	2021	2022	National government	Ministry of Infrastructure and Water Management (I&W)				Abolition/termination/completion of measure
106			Planned	2023	2030	National government	Ministry of Infrastructure and Water Management (I&W)	Producers provide a yearly report of the amount of textiles they produced, after 5 years the policy is evaluated.	2027-2028		Drafts, announcements, commitments, planned measures, discussions for a new measure
107			Implemented	2020	Tbd	National government, Regional entities, Companies/businesses /industrial associations	Ministry of Economic Affairs and Climate (EZK), Netherlands Authority for Consumers and Markets (ACM), National and regional grid operators (TenneT, Coteq, Enduris, Enexis, Gasunie, Liander, Rendo, Stedin, Westland Infra)				Amendments, implementation or design changes and extension of an on-going measure

	P	Q	R	S	T	U	V	W	X	Y	Z
108			Implemented	2020	2025	National government, Companies/businesses /industrial associations, Research institutions	Ministry of Economic Affairs and Climate (EZK), Ministry of Finance, Various research institutions and companies				Newly included PAM
109			Implemented	2021		Companies/ businesses/industrial associations	Invest-NL				
110			Implemented	2022		Companies/ businesses/industrial associations					
111			Implemented	2019	Tbd	National government	Dutch Research Council (NWO)				
112			Planned	2020	2030	National government	Ministry of Economic Affairs and Climate (EZK)				
113			Implemented	2020	2025	National government	Ministry of Agriculture (including Nature and Food Quality/LNV)/Netherlands Enterprises Agency (RVO)				
114			Implemented	1995		National government	Netherlands Enterprises Agency (RVO)				
115			Implemented	2019	Tbd	National government	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
116			Implemented	2020	Tbd	Provinces	Provinces				
117			Implemented	2014	Tbd	Provinces	Provinces				
118			Implemented	2022	Tbd	National government, Other	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
119			Planned	2021	Tbd	National government, Other	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
120			Implemented	2020	Tbd	Provinces	Provinces				
121			Planned	2022	2025	National government	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				

	P	Q	R	S	T	U	V	W	X	Y	Z
122			Planned			National government	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
123			Implemented	2021	2022	Provinces	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
124			Expired	2018	2019	Provinces	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
125			Implemented	2021	2022	National government	Ministry of Agriculture (including Nature and Food Quality/LNV), Provinces				
126			Implemented	2023		National government					
127			Planned	2024		National government					
128			Planned	2023		National government					
129			Planned	2023		National government					
130			Implemented	2014	2024	National government	Ministry of Infrastructure and Water Management (I&W) [National government], Various [Companies/businesses/industrial associations], Various intermediaries [Other]				
131			Implemented	2016	2030	National government	Ministry of Infrastructure and Water Management (I&W), Municipalities				
132			Implemented	2018	2025	National government	Ministry of Infrastructure and Water Management (I&W), Municipalities				
133			Implemented	2021	2025	National government	Ministry of Infrastructure & Water (I&W), Netherlands Enterprises Agency (RVO)				
134			Implemented	2021	2021	National government	Netherlands Enterprises Agency (RVO)				
135			Planned	2024	Tbd	National government	Ministry of Infrastructure and Water Management (I&W)				
136			Implemented	2021	2025	National government	Netherlands Enterprises Agency (RVO)				
137			Implemented	2017	Tbd	National government	Netherlands Enterprises Agency (RVO)				

	P	Q	R	S	T	U	V	W	X	Y	Z
138			Implemented	2022	2022	National government	Ministry of Economic Affairs and Climate (EZK), Ministry of Social Affairs and Employment (SZW) [National government], Various [Companies/businesses/industrial associations]				
139			Planned	2023	2023	National government	Ministry of Economic Affairs and Climate (EZK)				
140			Planned	2023	2023	National government	Ministry of Economic Affairs and Climate (EZK)				
141			Expired	2022	2022	National government	Ministry of Economic Affairs and Climate (EZK)				Abolition/termination/completion of measure
142			Implemented	2023	2027	National government	Ministry of the Interior and Kingdom Relations (BZK)/Netherlands Enterprises Agency (RVO)				

	P	Q	R	S	T	U	V	W	X	Y	Z
143			Implemented	2022	2023	National government	Ministry of Infrastructure & Water (I&W), Netherlands Enterprises Agency (RVO)				
144											
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150			Planned	2024		National government	Ministry of Infrastructure and Water Management (I&W)				Drafts, announcements, commitments, planned measures, discussions for a new measure

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3			Progress against policy indicators ⁽¹⁴⁾			
4	Explanations of the update or the link to an extra/additional document	Progress against policy objective ⁽¹³⁾	Indicator	Value	Year	Unit
5	Miap	M	Miap			
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10	There is a bill in the Parliament that aims to phase out net metering.	NA	Installed capacity	13 petajoule	2020	petajoule
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21	Measure ended in 2021, is replaced by the SCE subsidy scheme		Installed capacity	>65,3	2021	MWp
22	shift to HER+ (see PAM BNL-PAM-0141)					
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24						
25						

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26	Kamerbrief over aanvullende routekaart windenergie op zee 2030 Kamerstuk Rijksoverheid.nl and https://english.rvo.nl/sites/default/files/2022/07/WOZ-210622022062-Letter-Additional-Offshore-Wind%20Energy-Roadmap-2030.pdf	On track	Installed capacity	Circa 2.6 GW by the end of 2022: 1.5 GW at Borssele + circa 1.1 GW (about 100 of a total of 140 turbines of 11 MW each) at Hollandse Kust (zuid).	2022	GW
27						
28						
29						
30	The RPCE will be replaced by the NPCE in 2023.	The RPCE has resulted in the creation of the implementation programme for a circular economy (UPCE) and the five transition agendas.				
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43	PBL has assessed the first round of RES-es drafted by the regions. https://www.pbl.nl/publicaties/monitor-res-1.0		renewable electricity production	35	2030	TWh
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56	Adjustment in 2022 in line with new insights and the new Dutch Coalition Agreement					
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63	In 2021, the SDE++ was broadened with new categories for advanced renewable transport fuels and carbon capture and usage for the greenhouse industry. From 2023 onward, the SDE++ will be adjusted by the adding so-called "fences" for three energy domains: High temperature heat, low temperature heat, and molecules. For each of these domains, part of the SDE++ budget will be reserved with the aim of creating more space for techniques which are less cost-effective in the short term, but necessary for the energy transition. In addition, the maximum subsidy intensity within the fences will be increased from € 300/ton CO2 to € 400/ton CO2. The domains CCS/CCU and Electricity will not be placed within fences. The majority of the SDE++ budget will remain available outside of the fences, where all techniques can compete with each other. For more information: https://www.rijksoverheid.nl/documenten/kamerstukken/2022/07/01/verzamelbrief-sde					
64						
65	After the approval of the Senate on the 15th of March, the legislation entered into force on the 5th of April. At the request of the Senate there will be an interim evaluation of the price path, as set in the legislature. This was confirmed by a letter to the senate on the 14th of March 2022. Reason for this interim evaluation is the recent increase of the EU-ETS price. The interim evaluation might lead to a recalibration of the price path.	NA				
66						
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68						
69		A report will be published on the quantitative effects (raw materials saved and emissions reduced) in 2025.				
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73						
74	Measure started in 2021 as follow up on the RVT (postal code area subsidy scheme for solar PV).		Installed capacity	2,8	2021	MW

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83	Programme intensified and linked to the New Dutch Programme on the Energy System					
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95	Mid 2019 preparation started for a new "Energy Act", which will (1) combine and modernize the current Electricity Act and the Gas Act and (2) implement the European Clean Energy Package. In July 2022 a draft version was sent for advice to the Council of State; documents are accessible via the following link: https://wetgevingskalender.overheid.nl/Regeling/WGK010483	NA				
96	Programma Noordzee 2022-2027 - Noordzeeloket	On track	No		2030	
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141	Due to the gascrisis the measures was abolished per the 20th of june 2022, after being in effect per 1st of January 2022. For more background refer to the letter send on 20-06-2022	NA				
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3			Dimension specific reporting			
4	Reference to assessments and underpinning technical reports	General Comments	Vector(s) affected ⁽¹⁵⁾	Supported Energy Union R&I priority ⁽¹⁶⁾	Supported Clean energy/ low carbon technologies ⁽¹⁷⁾	Sectors supported ⁽¹⁸⁾
5	M	M	Miap	M	M	Miap
6	General information on website (see link)					
7	Annual overview reports through website (see link)					
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10	Klimaat- en EnergieVerkenning (KEV)		Electricity	No.1 in renewables	Performant renewable technologies integrated in the system, Reduce costs of technologies	Electricity: solar PV only
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16	Various progress and evaluation reports (see website)					
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19	assessment ongoing, will be available in Q1 2023		whole system, electricity, heat, other fuels	No.1 in renewables, energy systems, energy efficiency, sustainable transport, CCS/CCU	No.1 in renewables, Reduce costs of technologies, Energy systems, Resilience and security of energy systems, Energy efficiency, Energy efficiency for industry, Renewable fuels and bioenergy, CCS – CCU	Renewable energy, Built Environment, Industry, System Integration
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21	Lokale Energie Monitor (Hier Opgewekt, 2021)		Electricity	No.1 in renewables	Performant renewable technologies integrated in the system, Reduce costs of technologies	Electricity: solar PV only
22	assessment ongoing, will be available in Q1 2024		electricity	No.1 in renewables	No.1 in renewables, reduce cost of technologies	Renewable energy
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24	Periodic progress overviews available via website					
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	AG	AH	AI	AJ	AK	AL
26	Kamerbrief over aanvullende routekaart windenergie op zee 2030 Kamerstuk Rijksoverheid.nl and https://english.rvo.nl/sites/default/files/2022/07/WOZ-210622022062-Letter-Additional-Offshore-Wind%20Energy-Roadmap-2030.pdf					
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34	The knowledge platform CROW maintains a nationale monitoring dashboard					
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43	https://www.pbl.nl/publicaties/monitor-res-1.0					
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55	assessment ongoing, will be available in Q1 2025		whole system, electricity, heat, other fuels	No.1 in renewables, energy systems, energy efficiency, sustainable transport, CCS/CCU	No.1 in renewables, Reduce costs of technologies, Energy systems, Resilience and security of energy systems, Energy efficiency, Energy efficiency for industry, Renewable fuels and bioenergy, CCS – CCU	Renewable energy, Built Environment, Industry, System Integration
56	assessment ongoing, will be available in Q1 2026		whole system, electricity, heat, other fuels	No.1 in renewables, energy systems, energy efficiency, sustainable transport, CCS/CCU		Renewable energy, Built Environment, Industry, Mobility, Agriculture, System Integration
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63	Periodic progress overviews available through the RVO website: https://www.rvo.nl/subsidie-en-financieringswijzer/sde/feiten-en-cijfers/stand-van-zaken-aanvragen					
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70	assessment ongoing, will be available in Q1 2027		whole system, electricity, heat, other fuels	No.1 in renewables, energy systems, energy efficiency, sustainable transport, CCS/CCU	No.1 in renewables, Reduce costs of technologies, Energy systems, Resilience and security of energy systems, Energy efficiency, Energy efficiency for industry, Renewable fuels and bioenergy, CCS – CCU	Renewable energy, Built Environment, Industry, System Integration
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74	Lokale Energie Monitor (Hier Opgewekt, 2021)	From the 2021 subsidy round, far more projects will finally realize. But from the subsidies granted in 2021, in 2021 28 project realized in total 2,8 MW. In 2022, far more projects are expected to commence electricity production based on their 2021 subsidy grant.	Electricity	No.1 in renewables	Performant renewable technologies integrated in the system, Reduce costs of technologies	Electricity: solar PV, wind power, water power (all on land only)

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83	assessment ongoing, will be available in Q1 2029		whole system, electricity, heat, other fuels	energy systems	Energy systems, Resilience and security of energy systems	System Integration
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96	Programma Noordzee 2022-2027 - Noordzeeloket					
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102	assessment ongoing, will be available in Q1 2028		electricity	No.1 in renewables, CCS/CCU	No.1 in renewables, reduce cost of technologies, renewable fuels, CCS/CCU	Renewable energy

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107	<p>Link to various grid-investment plans through the website of the Dutch trade association for electricity and gas network operators (https://www.netbeheernederland.nl/nieuws/netbeheerders-investeren-volop-in-uitbreiding-netcapaciteit-1519)</p>		<p>Whole system; Electricity; Gas</p>		<p>Resilience and security of energy systems</p>	

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108	General information on website (see: https://www.nationaalgroefonds.nl/english)			No. 1 in renewables; Energy systems; Energy efficiency; Sustainable transport	No.1 in renewables: Performant renewable technologies integrated in the system, Reduce costs of technologies; Energy systems: New technologies and services for consumers; Energy efficiency: New materials and technologies for buildings, Energy efficiency for industry; Sustainable transport: Renewable fuels and bioenergy;	Projects in various sectors and technologies are supported . Projects are categorized according to the following themes: 'Energy and sustainable development'; 'Agriculture and living environment', 'health and care', 'Security and digitization', 'Mobility'; and 'Key technologies'. For an overview of approved projects, see: https://www.nationaalgroefonds.nl/projecten-ronde-2 . For more information on the conditions and criteria for the proposal assessments, see: https://www.nationaalgroefonds.nl/english/primary-conditions-and-criteria
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153	Notes:							
154	M = mandatory; Miap = mandatory if applicable							
155	(1) Member States shall select from the following objectives, targets and contributions in the integrated national energy and climate plan (more than one objective, target or contribution can be selected):							
156	In dimension Decarbonisation: GHG emissions and removals – Member State's binding national target for greenhouse gas emissions and the annual binding national limits pursuant to Regulation (EU) 2018/842; Member State's commitments pursuant to Regulation (EU) 2018/841; Other objectives and targets, including sector targets and adaptation goals.							
157	In dimension Decarbonisation: Renewable energy - A contribution to the Union's binding target of at least 32% renewable energy in 2030 as referred to in Article 3 of Directive (EU) 2018/2001; Estimated trajectories for the sectoral share of renewable energy in final energy consumption from 2021 to 2030 in the electricity, heating and cooling and transport sector; Estimated trajectories per renewable energy technology; Estimated trajectories on bioenergy demand, disaggregated between heat, electricity and transport, and on biomass supply, by feedstock and origin; Other national trajectories and objectives, including those that are long-term or sectoral (e.g. share of renewable energy in district heating, renewable energy use in buildings, renewable energy produced by cities, renewable energy communities and renewables self-consumers, energy recovered from the sludge acquired through the treatment of wastewater).							
158	In dimension Energy efficiency - The indicative national energy efficiency contribution to achieving the Union's energy efficiency targets of at least 32,5 % in 2030 as referred to in Article 1(1) and Article 3(5) of Directive 2012/27/EU; The cumulative amount of end-use energy savings to be achieved over the period 2021-2030 under point (b) of Article 7(1) on the energy saving obligations pursuant to Directive 2012/27/EU; The indicative milestones of the long-term strategy for the renovation of the national stock of residential and non-residential buildings; The total floor area to be renovated or equivalent annual energy savings to be achieved from 2021 to 2030 under Article 5 of Directive 2012/27/EU on the exemplary role of public bodies' buildings; Other national objectives, including long-term targets or strategies and sectoral targets, and national objectives in areas such as energy efficiency in the transport sector and with regard to heating and cooling.							
159	In dimension Energy security - National objectives with regard to increasing the diversification of energy sources and supply from third countries, the purpose of which may be to reduce energy import dependency; National objectives with regard to reducing energy import dependency from third countries, for the purpose of increasing the resilience of regional and national energy systems; National objectives with regard to increasing the flexibility of the national energy system, in particular by means of deploying domestic energy sources, demand response and energy storage; National objectives with regard to addressing constrained or interrupted supply of an energy source, for the purpose of improving the resilience of regional and national energy systems.							
160	In dimension Internal energy market - The level of electricity interconnectivity that the Member State aims for in 2030 in consideration of the electricity interconnection target for 2030 or at least 15%; Key electricity and gas transmission infrastructure projects, and, where relevant, modernisation projects, that are necessary for the achievement of objectives and targets under the five dimensions of the Energy Union; Main infrastructure projects envisaged other than Projects of Common Interest (PCIs); National objectives related to other aspects of the internal energy market such as increasing system flexibility, in particular related to the promotion of competitively determined electricity prices in line with relevant sectoral law, market integration and coupling, aimed at increasing the tradeable capacity of existing interconnectors, smart grids, aggregation, demand response, storage, distributed generation, mechanisms for dispatching, re-dispatching and curtailment, and real-time price signals; National objectives related to the non-discriminatory participation of renewable energy, demand response and storage, including via aggregation, in all energy markets; National objectives with regard to ensuring that consumers participate in the energy system and benefit from self-generation and new technologies, including smart meters; National objectives with regard to ensuring electricity system adequacy, as well as for the flexibility of the energy system with regard to renewable energy production; National objectives to protect energy consumers and improve the competitiveness of the retail energy sector; national objectives with regard to energy poverty.							
161	In dimension Research, innovation and competitiveness - National objectives and funding targets for public and, where available, private research and innovation relating to the Energy Union; National 2050 objectives related to the promotion of clean energy technologies and, where appropriate, national objectives, including long-term targets (2050) for deployment of low-carbon technologies, including for decarbonising energy and carbon-intensive industrial sectors and, where applicable, for related carbon transport and storage infrastructure; National objectives with regard to competitiveness.							
162	(2) Member States shall select from the following categories: covering two or more countries, national, regional, local.							
163	(3) Member States shall select from the following sectors (more than one sector can be selected for cross-sectoral policies and measures): energy supply (comprising extraction, transmission, distribution and storage of fuels as well as the transformation of energy for heating and cooling and electricity production); energy consumption (comprising consumption of fuels and electricity by end users such as households, public administration; services, industry and agriculture); transport; industrial processes (comprising industrial activities that chemically or physically transform materials leading to greenhouse gas emissions, use of greenhouse gases in products and non-energy uses of fossil fuel carbon); agriculture; LULUCF; waste management/waste; other sectors.							
164	(4) Objective means 'initial statement of the outcomes (including results and impacts) intended to be achieved by the intervention'. Member States shall select from the following objectives (more than one objective may be selected, additional objectives may be added and specified under 'other'):							
165	For energy supply — increase in renewable energy sources in the electricity sector; increase in renewable energy in the heating and cooling sector; switch to less carbon-intensive fuels; enhanced nonrenewable low carbon generation (nuclear); reduction of losses; efficiency improvement in the energy and transformation sector; carbon capture and storage or carbon capture and utilisation; control of fugitive emissions from energy production; increase the number of sources used in primary energy generation; reduce energy dependency from third countries; improve the resilience of energy supply infrastructure, including ensuring energy supply in case of major disruptions to the network; increase the ability of the power network to absorb increased share of renewable generation; increase electricity interconnectivity; increase price convergence of electricity markets;							
166	increase consumer participation in energy markets; increase electricity system flexibility and adequacy; research and innovation in energy supply; other energy supply.							
167	For energy consumption — efficiency improvements of buildings; efficiency improvement of appliances; efficiency improvement in services/tertiary sector; efficiency improvement in industrial enduse sectors; demand management/reduction; research and innovation in technologies, processes and materials, which will contribute to reduction in energy consumption; other energy consumption.							
168	For transport — efficiency improvements of vehicles; modal shift to public transport or non-motorized transport; low carbon fuels; electric road transport; demand management/reduction; improved behaviour; improved transport infrastructure; reduce emissions from international air or maritime transport; research and innovation to reduce emissions from the transport sector; innovation in digitalisation of transport; other transport.							
169	For industrial processes — installation of abatement technologies; improved control of fugitive emissions from industrial processes; improved control of manufacturing, fugitive and disposal emissions of fluorinated gases; replacement of fluorinated gases by gases with a lower GWP value; research and innovation in making EU industry less energy intensive; other industrial processes.							
170	For waste management/waste — demand management/reduction; enhanced recycling; enhanced CH4 collection and use; improved treatment technologies; improved landfill management; waste incineration with energy use; improved wastewater management systems; reduced landfilling; other waste.							
171	For agriculture — reduction of fertilizer/manure use on cropland; other activities improving cropland management; improved livestock management; improved animal waste management systems; activities improving grazing land or grassland management; improved management of organic soils; other agriculture.							
172	For LULUCF — afforestation and reforestation; conservation of carbon in existing forests; enhancing production in existing forests; increasing the harvested wood products pool; enhanced forest management; prevention of deforestation; strengthening protection against natural disturbances; substitution of GHG intensive feedstocks and materials with harvested wood products; prevention of drainage or rewetting of wetlands; restoration of degraded lands; other LULUCF.							
173	For Other — Member States shall provide a brief description of the objective.							
174	(5) Member States shall include, as a minimum, the figure(s), unit(s), end year and base year if the objective(s) is(are) quantified. Quantified objectives shall be specific, measurable, achievable, relevant and time related.							
175	(6) Member States shall select from the following policy types: economic; fiscal; voluntary/negotiated agreements; regulatory; information; education; research; planning; other.							
176	(7) List here only Union policy/policies that are implemented through the national policy or where national policies are aimed directly at meeting the objectives of Union policies. Member State shall select a policy/policies from a list provided in the electronic version of the tabular format, or select other and specify the name of the Union policy.							
177	(8) Member States shall report on the policies and measures or groups of policies and measures that contribute to dimensions Decarbonisation: Renewable energy and Energy efficiency. Member State shall select a relevant provision from a list provided in the electronic version of the tabular format, or select other and specify the name of the provision.							
178	(9) Member States shall select from the following categories: planned; adopted; implemented; expired.							
179	(10) Member States shall select from the following options and enter the name/s of entities responsible for implementing the policy or measure (more than one entity may be selected): national government; regional entities; local government; companies/ businesses/industrial associations; research institutions; others not listed.							
180	(11) Member States shall provide any indicator (including the unit) and values for such indicators that will be used (ex-ante) to monitor and evaluate progress of policies and measures. Member States shall specify the year or years for which the value applies. Values for multiple indicators and years may be reported. Performance indicators identified by Member States shall be relevant, accepted, credible, easy and robust.							
181	(12) Member States shall select from the following options (additional options may be added and specified under 'Other'): Adoption of a new measure, conclusion of agreement, publication of legislation; Commencement/enforcement of a measure/programme; Abolition/termination/completion of measure; Amendments, implementation or design changes and extension of an on-going measure; Monitoring information, update on progress or impact assessment results; Continuation of existing measures/no significant updates; Drafts, announcements, commitments, planned measures, discussions for a new measure; Other.							
182	(13) Member States shall provide qualitative description of the progress achieved against policy objective.							

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182	(14)		Member States shall provide the indicator(s) (including the unit) and values for such indicators that have been used (ex-post) to monitor and evaluate progress of policies and measures. Member States shall specify the year or years for which the value applies. Values for multiple indicators and years may be reported. Performance indicators identified by Member States shall be relevant, accepted, credible, easy and robust.					
183	(15)		Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Energy security. Member States shall select from the following vectors (more than one vector can be selected; additional vectors may be added and specified under 'Other fuels'): Whole system; Electricity; Gas; Petroleum products; Nuclear; Heat; Other fuels.					
184	(16)		Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Research, innovation and competitiveness. Member States shall select one or more priorities from a list provided in the electronic version of the tabular format.					
185	(17)		Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Research, innovation and competitiveness. 'Clean energy and low carbon technologies' include all the technologies covered under the SET Plan. Member States shall select one or more technologies from a list provided in the electronic version of the tabular format.					
186	(18)		Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Research, innovation and competitiveness. Member States should include a description of which sectors are supported by this policy.					
187								
188	(a)		sector codes:					
189	1		Energy supply					
190	2		Energy consumption					
191	3		Transport					
192	4		Industrial processes					
193	5		Waste management/waste					
194	6		Agriculture					
195	7		Land use, land-use change and forestry					
196	8		Other sectors					
197								
198	(b)		objectives codes:					
199	1		Increase in renewable energy sources in the electricity sector					
200	2		Increase in renewable energy in the heating and cooling sector					
201	3		Switch to less carbon-intensive fuels					
202	4		Enhanced non-renewable low carbon generation (nuclear)					
203	5		Reduction of losses					
204	6		Efficiency improvement in the energy and transformation sector					
205	7		Carbon capture and storage or carbon capture and utilization					
206	8		Control of fugitive emissions from energy production					
207	9		Other energy supply					
208	10		Efficiency improvements of buildings					
209	11		Efficiency improvement of appliances					
210	12		Efficiency improvement in services/tertiary sector					
211	13		Efficiency improvement in industrial end-use sectors					
212	14		Demand management/reduction					
213	15		Other energy consumption					
214	16		Efficiency improvements of vehicles					
215	17		Modal shift to public transport or non-motorized transport					
216	18		Low carbon fuels					
217	19		Electric road transport					
218	20		Demand management/reduction					
219	21		Improved behavior					
220	22		Improved transport infrastructure					
221	23		Reduce emissions from international air or maritime transport					
222	24		Other transport					
223	25		Installation of abatement technologies					
224	26		Improved control of fugitive emissions from industrial processes					
225	27		Improved control of manufacturing, fugitive and disposal emissions of fluorinated gases					
226	28		Replacement of fluorinated gases by gases with a lower GWP value					
227	29		Other industrial processes					
228	30		Demand management/reduction					
229	31		Enhanced recycling					
230	32		Enhanced CH4 collection and use					
231	33		Improved treatment technologies					
232	34		Improved landfill management					
233	35		Waste incineration with energy use					
234	36		Improved wastewater management systems					
235	37		Reduced landfilling					
236	38		Other waste					
237	39		Reduction of fertilizer/manure use on cropland					
238	40		Other activities improving cropland management					
239	41		Improved livestock management					
240	42		Improved animal waste management systems					
241	43		Activities improving grazing land or grassland management					
242	44		Improved management of organic soils					
243	45		Other agriculture					

	B	C	D	E	F	G	H	I
244	46	Afforestation and reforestation						
245	47	Conservation of carbon in existing forests						
246	48	Enhancing production in existing forests						
247	49	Increasing the harvested wood products pool						
248	50	Enhanced forest management						
249	51	Prevention of deforestation						
250	52	Strengthening protection against natural disturbances						
251	53	Substitution of GHG intensive feedstocks and materials with harvested wood products						
252	54	Prevention of drainage or rewetting of wetlands						
253	55	Restoration of degraded lands						
254	56	Other land use, land-use change and forestry						
255	57	Other objectives						

Annex IX Table 2

Available results of ex-ante and ex-post assessments of the effects of individual or groups of policies and measures on renewable energy production ⁽¹⁾

PaM Number	Ex-ante assessment				Ex-post assessment					
	Renewable energy production (ktoe/year)				Explanation of the basis for the estimate	Documentation / Source of estimation if available (provide a weblink of the report where the figure is referenced from)	Year for which production applies ⁽²⁾	Renewable energy production (ktoe/year) ⁽³⁾	Explanation of the basis for the estimate	Documentation / Source of estimation if available (provide a weblink of the report where the figure is referenced from)
	t	t+5	t+10	t+15						
V										
22 (postcoderoos regeling)										The measure has been evaluated in 2018. The report can be found here: https://www.tweedekamer.nl/downloads/document?id=2018D34351
25 (ISDE)										The policy measure (ISDE) has been evaluated in 2019. The report can be found here: https://www.seo.nl/wp-content/uploads/2020/06/2019-45-Evaluatie-ISDE-KA.pdf
<i>Add further rows, as needed</i>										

Notation: V = voluntary; t signifies the first future year ending with 0 or 5 immediately following the reporting year.

Notes:

(1) Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Decarbonisation: Renewable energy. Member States shall report on all the policies and measures or groups of policies and measures for which such assessment is available.

(2) Member States may report ex-post assessments for more than one year, where available reporting shall focus on years ending with 0 or 5.

(3) Ex-post evaluations include all evaluations based on results from parts of, or the whole implementation period.

Annex IX Table 3

Available results of ex-ante and ex-post assessments of the effects of individual or groups of policies and measures on energy efficiency ⁽¹⁾

PaM Number	Ex-ante assessment				Ex-post assessment					
	Energy reductions (ktoe/year, energy)				Explanation of the basis for the estimate	Documentation / Source of estimation if available (provide a weblink of the report where the figure is referenced from)	Year for which reduction applies ⁽²⁾	Energy reductions (ktoe/year, final energy) ⁽³⁾	Explanation of the basis for the estimate	Documentation / Source of estimation if available (provide a weblink of the report where the figure is referenced from)
	t	t+5	t+10	t+15						
V										
21 (nationaal energiebespaarfonds)										The PaM was evaluated in 2021. The report can be found here: https://open.overheid.nl/repository/rnl-c17c4b9e-891f-4cd5-85ff-60db10a0f39d/1/pdf/evaluatie-nationaal-energiebespaarfonds.pdf
21 (nationaal energiebespaarfonds)										This policy measure was a part of policy analysis done in 2022. The report can be found here: https://www.tweedekamer.nl/downloads/document?id=2022D27450
25 (ISDE)										This policy measure was evaluated in 2019. The report can be found here: https://www.seo.nl/wp-content/uploads/2020/06/2019-45-Evaluatie-ISDE-KA.pdf
29 (SEEH)										This policy measure was a part of policy analysis done in 2022. The report can be found here: https://www.tweedekamer.nl/downloads/document?id=2022D27450
33 (energieprestatievergoeding (EPV))										This policy measure was a part of policy analysis done in 2022. The report can be found here: https://www.tweedekamer.nl/downloads/document?id=2022D27450
52 (RRE)										This policy measure was a part of policy analysis done in 2022. The report can be found here: https://www.tweedekamer.nl/downloads/document?id=2022D27450

Notation: V = voluntary; t signifies the first future year ending with 0 or 5 immediately following the reporting year.

Notes:

(1) Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Energy efficiency. Member States shall report on all the policies and measures or groups of policies and measures for which such assessment is available.

(2) Member States may report ex-post assessments for more than one year, where available reporting shall focus on years ending with 0 or 5.

(3) Ex-post evaluations include all evaluations based on results from parts of, or the whole implementation period.

Annex IX Table 4

Available projected and realised costs and benefits of individual or groups of policies and measures on renewable energy production ⁽¹⁾

PaM Number	Projected costs and benefits (ex-ante assessment)									
	Year(s) for which cost has been calculated	Gross cost in EUR per toe renewable energy production	Absolute gross costs per year in EUR	Absolute benefits ⁽²⁾ per year in EUR	Benefits ⁽²⁾ in EUR per toe renewable energy production	Net costs in EUR per toe renewable energy production	Absolute net cost per year in EUR	Price year	Description of cost estimates (basis for cost estimate, what type of costs are included in the estimate, methodology) ⁽³⁾	Documentation/s ource (provide a weblink of the report where the figure is referenced from)
V										
PAM 1										
PAM 2										
Add further rows, as needed										

Notes:

V = voluntary

(1) Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Decarbonisation: Renewable energy. Member States shall report on all the policies ;

(2) A benefit shall be indicated as a negative value.

(3) The description shall include the type of costs and benefits that have been taken into consideration, the stakeholders considered in the assessment of costs and benefits, the baseline against which costs and

Realised costs and benefits (ex-post assessment)											
Description of other benefits	Year(s) for which cost has been calculated	Gross cost in EUR per toe renewable energy production	Absolute gross costs per year in EUR	Benefits ⁽²⁾ in EUR per toe renewable energy production	Absolute benefits ⁽²⁾ per year in EUR	Net costs in EUR per toe renewable energy production	Absolute net costs per year in EUR	Price year	Description of cost estimates (basis for cost estimate, what type of costs are included in the estimate, methodology) ⁽³⁾	Documentation/s ource (provide a weblink of the report where the figure is referenced from)	Description of other benefits

and measures or groups of policies and measures for which such assessment is available.

benefits are compared, and the methodology.

Annex IX Table 5

Available projected and realised costs and benefits of individual or groups of policies and measures on energy efficiency ⁽¹⁾

PaM Number	Projected costs and benefits (ex-ante assessment)											Year(s) for which cost has been calculated	Gross cost in EUR per toe final energy reduction	
	Year(s) for which cost has been calculated	Gross cost in EUR per toe final energy reduction	Absolute gross costs per year in EUR	Absolute benefits ⁽²⁾ per year in EUR	Benefits ⁽²⁾ in EUR per toe final energy reduction	Net costs in EUR per toe final energy reduction	Absolute net cost per year in EUR	Price year	Description of cost estimates (basis for cost estimate, what type of costs are included in the estimate, methodology) ⁽³⁾	Documentation/s ource (provide a weblink of the report where the figure is referenced from)	Description of other benefits			
V														
PAM 1														
PAM 2														
Add further rows, as needed														

Notes:

V = voluntary

(1) Member States shall report on the policies and measures or groups of policies and measures that contribute to dimension Energy efficiency. Member States shall report on all the policies and measures or groups of poli

(2) A benefit shall be indicated in the template as a negative value.

(3) The description shall include the type of costs and benefits that have been taken into consideration, the stakeholders considered in the assessment of costs and benefits, the baseline against which costs and benefits ar

Realised costs and benefits (ex-post assessment)								
Absolute gross costs per year in EUR	Benefits ⁽²⁾ in EUR per toe final energy reduction	Absolute benefits ⁽²⁾ per year in EUR	Net costs in EUR per toe final energy reduction	Absolute net costs per year in EUR	Price year	Description of cost estimates (basis for cost estimate, what type of costs are included in the estimate, methodology) ⁽³⁾	Documentation/s ource (provide a weblink of the report where the figure is referenced from)	Description of other benefits

cies and measures for which such assessment is available.

e compared, and the methodology.

Annex X Table 1

Energy efficiency Obligation Schemes (EEOS) referred to in Article 7a of Directive 2012/27/EU

PaM Number	M	
Source(s) of information (including the reference of the related law or other legal text(s))	M	
Expected savings for 2021-2030 and duration of the obligation period(s) (points 5(d) and 5(e) of Annex V to Directive 2012/27/EU)		
Expected cumulative end-use energy savings for the period 2021-2030 (ktoe)	M	
Expected new annual end-use energy savings (ktoe/year) ⁽¹⁾	Miap	
2021	Miap	
2022	Miap	
2023	Miap	
2024	Miap	
2025	Miap	
2026	Miap	
2027	Miap	
2028	Miap	
2029	Miap	
2030	Miap	
Duration of the obligation period(s)	M	
Key design features		
Obligated parties and their responsibilities (point 5(b) of Annex V to Directive 2012/27/EU)	M	
Target sectors (point 5(c) of Annex V to Directive 2012/27/EU) ⁽²⁾	M	
Sectors where individual actions are eligible to the EEOS (if different from the target sectors listed above) (point 5(c) of Annex V to Directive 2012/27/EU)	M	
Individual actions eligible to the EEOS (point 5(f) of Annex V to Directive 2012/27/EU) and corresponding lifetimes (points 2(i) and 5(h) of Annex V to Directive 2012/27/EU) ⁽³⁾	M	
Information on the application of the following EED provisions:		
Where applicable, specific actions and/or share of savings to be achieved in vulnerable households, including those affected by energy poverty, and, where appropriate, in social housing (article 7(11) to Directive 2012/27/EU)	Miap	
Savings achieved by energy service providers or other third parties (Article 7a(6), point (a) of Directive 2012/27/EU) ⁽⁴⁾	Miap	
Rules about banking and borrowing (point (b) of Article 7a(6) , point (b) of Directive 2012/27/EU)	Miap	
Possibilities for trading of energy savings (where relevant)	Miap	
Interactions with a National Energy Efficiency Fund in accordance with Article 20(6) of Directive 2012/27/EU (as considered in Article 7a(1) of that Directive) ⁽⁵⁾	Miap	
General information about the calculation methodology		

Measurement method(s) used (point 1 of Annex V , to Directive 2012/27/EU) ⁽⁶⁾	M	
Metric(s) used to express the energy savings (primary or final energy savings) (Article 7a(4), and point 3(d) of Annex V to Directive 2012/27/EU)	M	
How are lifetimes (and possible changes in savings over time) taken into account in savings calculations (points 2(i) and 5(h) of Annex V to Directive 2012/27/EU) ⁽⁷⁾	M	
Other sources of information or references (e.g. studies, evaluation reports) where more explanations and details about the savings calculations can be found	V	
Additionality and materiality (requirements related to points 2 and 5(g) of Annex V to Directive 2012/27/EU)		
Description of the calculation methodology; including how additionality is taken into account in the calculation methodology (point 2(a) of Annex V to Directive 2012/27/EU) ⁽⁸⁾	M	
Does the EEOS promote early replacements? If so, how is it taken into account in the calculation of the savings? (point 2(f) of Annex V to Directive 2012/27/EU)	M	
Benchmarks used for deemed and scaled savings (in case deemed or scaled savings are used) (point 1(c) of Annex V to Directive 2012/27/EU)	M	
How is materiality of savings ensured? (point 3(h) of Annex V to Directive 2012/27/EU)	M	
Possible overlaps (between policy measures and between individual actions) and double counting		
Possible overlaps between individual actions eligible to the EEOS ⁽⁹⁾	Miap	
Possible overlaps between the EEOS and alternative measure(s) reported according to Article 7 of Directive 2012/27/EU	Miap	
How are possible overlaps (between the EEOS and alternative measures) addressed to avoid any double counting of energy savings? (point 3(g) of Annex V to Directive 2012/27/EU)	M	
Climatic variations (where relevant) (points 2(h) and 5(i) of Annex V to Directive 2012/27/EU)		
Are there climatic variations between regions? And can they affect the actions eligible to the EEOS?	Miap	
How are climatic variations addressed in savings calculations where relevant?	Miap	
Monitoring and verification (M&V) of savings (point 5(j) of Annex V to Directive 2012/27/EU)		

Brief description of the monitoring & verification system and of the process of verification	M	
Authorities responsible for the M&V of the EEOS	M	
Independence of the M&V from obligated parties (Article 7a (5) of Directive 2012/27/EU)	M	
Verification of statistically representative samples (Article 7a (5) of Directive 2012/27/EU) ⁽¹⁰⁾	M	
Reporting obligations for obligated parties (savings achieved by each obligated party, or each sub-category of obligated party, and in total under the scheme)	M	
Publication of energy savings achieved each year under the EEOS (Article 7a (7) of Directive 2012/27/EU)	M	
Penalties applied in case of non-compliance (and related references, including the law or other legal texts setting the penalties and related conditions)	M	
Provision(s) in case the progress of the EEOS is not satisfactory (point 3(f) of Annex V to Directive 2012/27/EU)	M	
Information about quality standards (point 2(g) of Annex V to Directive 2012/27/EU)		
How are quality standards (for products, services and installation of measures) promoted or required by the EEOS?	Miap	
Complementary information or explanations		
Mention here any other information of explanation that can be useful for experience sharing	V	

Notes:

M = mandatory; Miap = mandatory if applicable; V = voluntary

(1) Member States shall complete this field if expected new annual end-use energy savings are stable. If the new annual end-use energy savings are expected to change over time MS shall complete the fields per year.

(2) Member States shall specify the sectors (residential; services; industry; transport; other(s)) taken into account to calculate the target(s) of the EEOS and to define obligated parties. If the sectors eligible for individual actions are different, it shall be specified in the next field.

main eligibility criteria and provide the list as a separate file. Member States shall specify the lifetime values assumed for the different types or categories of actions using Table 4 in this Annex.

(4) In case obligated parties are allowed to count towards their obligation certified energy savings achieved by energy service providers or other third parties, Member States shall explain the eligibility criteria for these third parties and how it is ensured that the certification of energy savings follows an approval process that is clear and transparent.

(5) Member States shall specify if obligated parties can or shall fulfil their savings obligation, in whole or in part, as a contribution to an Energy Efficiency National Fund.

(6) Member States shall specify the methods used according to the typology defined in Annex V(1): (a) deemed savings / (b) metered savings / (c) scaled savings / (d) surveyed savings. Member States shall explain in case another type of method is used.

(7) Member States shall add explanation, especially if a method different from the one presented in point 2(i) of Annex V is used).

(8) Member States shall explain how the calculation methodology complies with points (a) to (c) of Annex V(2), including how the effects of EU laws and regulations are taken into account, as required by points 2(b) and 2(c) of Annex V.

(9) Member States shall explain how such overlaps are taken into account in the savings calculations; for example interactions between insulation of walls and replacement of heating systems. Member States shall also explain how the M&V system prevents the same individual action to be reported by several obligated parties (avoiding double counting within the EEOS).

(10) Member States shall explain how verification of statistically representative samples of actions is ensured, and specify the criteria used to define and select representative samples.

Annex X Table 2

Alternative policy measures referred to in Article 7b and Article 20(6) of Directive 2012/27/EU (except taxation measures)

PaM Number	M	(this information shall be notified in a separate methodology description which will be published in March 2023)
Source(s) of information (including the reference of the related law or other legal text(s))	M	
Budget planned or estimated, including the corresponding implementation period(s)	V	
Expected savings for 2021-2030 and duration of the obligation period(s) (points 5(d) and 5(e) of Annex V to Directive 2012/27/EU)		
Expected cumulative end-use energy savings for the period 2021-2030 (ktoe)	M	
Expected new annual end-use energy savings (ktoe/year) ⁽¹⁾	Miap	
2021	Miap	
2022	Miap	
2023	Miap	
2024	Miap	
2025	Miap	
2026	Miap	
2027	Miap	
2028	Miap	
2029	Miap	
2030	Miap	
Intermediate period(s), where relevant ⁽²⁾	Miap	
Key design features		
Implementing public authorities, participating or entrusted parties and their responsibilities for implementing the policy measure (points 3(b) and 5(b) of Annex V to Directive 2012/27/EU)	M	
Target sectors (point 5(c) of Annex V to Directive 2012/27/EU) ⁽³⁾	M	
Individual actions eligible to the alternative measure (point 5(f) of Annex V to Directive 2012/27/EU) and corresponding lifetimes (points 2(i) and 5(h) of Annex V to Directive 2012/27/EU) ⁽⁴⁾	M	
Specific policy measures or individual actions targeting energy poverty (where applicable)	Miap	
General information about the calculation methodology		
Measurement method(s) used (point 1 of Annex V to Directive 2012/27/EU) ⁽⁵⁾	M	
Metric(s) used to express the energy savings (primary or final energy savings) (point 3(d) of Annex V to Directive 2012/27/EU)	M	
How are lifetimes (and possible changes in savings over time) taken into account in savings calculations (points 2(i) and 5(h) of Annex V to Directive 2012/27/EU) ⁽⁶⁾	M	
Other sources of information or references (e.g. studies, evaluation reports) where more explanations and details about the savings calculations can be found	V	
Additionality and materiality (requirements related to points 2 and 5(g) of Annex V to Directive 2012/27/EU)		
Description of the calculation methodology; including how additionality is taken into account in the calculation methodology (point 2(a) of Annex V to Directive 2012/27/EU) ⁽⁷⁾	M	
Does the policy measure promote early replacements? If so, how is it taken into account in the calculation of the savings? (point 2(f) of Annex V to Directive 2012/27/EU)	M	
Benchmarks used for deemed and scaled savings (in case deemed or scaled savings are used) (point 1(c) of Annex V to Directive 2012/27/EU)	M	
How is materiality of savings ensured? (point 3(h) of Annex V to Directive 2012/27/EU)	M	

Possible overlaps (between policy measures and between individual actions) and double counting		
Possible overlaps between individual actions eligible to the policy measure ⁽⁸⁾	Miap	
Possible overlaps between the EEOS (if any) and alternative measure(s) reported according to Article 7	Miap	
How are possible overlaps (between the EEOS, if any, and alternative measures) addressed to avoid any double counting of energy savings? (point 3(g) of Annex V)	M	
Climatic variations (where relevant) (points 2(h) and 5(i) of Annex V to Directive 2012/27/EU))		
Are there climatic variations between regions? And can they affect the actions eligible to the policy measure?	Miap	
How are climatic variations addressed in savings calculations where relevant?	Miap	
Monitoring and verification (M&V) of savings (point 5(j) of Annex V to Directive 2012/27/EU))		
Brief description of the monitoring & verification system and of the process of verification	M	
Authorities responsible for the M&V of the policy measure	M	
Independence of the M&V from the participating or entrusted parties (Article 7b(2) of Directive 2012/27/EU)	M	
Verification of statistically representative samples (Article 7b(2) of Directive 2012/27/EU) ⁽⁹⁾	M	
Publication of energy savings achieved each year under the policy measure (point 3(e) of Annex V to Directive 2012/27/EU)	M	
Penalties applied in case of non-compliance (and related references, including the law or other legal texts setting the penalties and related conditions)	M	
Provision(s) in case the progress of the policy measure is not satisfactory (point 3(f) of Annex V to Directive 2012/27/EU)	M	
Information about quality standards (point 2(g) of Annex V to Directive 2012/27/EU)		
How are quality standards (for products, services and installation of measures) promoted or required by the policy measure?	Miap	
Complementary information or explanations		
Any other information of explanation that can be useful for experience sharing	V	

Notes:

M = mandatory; Miap = mandatory if applicable; V = voluntary

(1) Member States shall complete this field if expected new annual end-use energy savings are stable. If the new annual end-use energy savings are expected to change over time MS shall complete the fields per year.

(2) Member States shall indicate here the periods or dates used to define intermediate objectives to enable reviewing the progress of the alternative measure.

(3) Member States shall specify the sectors (residential; services; industry; transport; other(s)) taken into account.

(4) Member States shall specify the categories of individual actions that can receive financial incentives or other types of support from the alternative measure, or that are promoted by the alternative measure through regulations, information or any type of policy instrument. If the list of measures is too long, Member States shall mention here the main eligibility criteria and provide the list as a separate file. Member States shall specify the lifetime values assumed for the different types or categories of actions using Table 4 in this Annex.

(5) Member States shall specify the methods used according to the typology defined in Annex V(1): (a) deemed savings / (b) metered savings / (c) scaled savings / (d) surveyed savings. Member States shall explain in case another type of method is used.

(6) Member States shall add explanation, especially if a method different from the one presented in point 2(i) of Annex V is used).

(7) Member States shall explain how the calculation methodology complies with points (a) to (c) of Annex V(2), including how the effects of EU laws and regulations are taken into account, as required by points 2(b) and 2(c) of Annex V).

(8) Member States shall explain how such overlaps are taken into account in the savings calculations; for example interactions between insulation of walls and replacement of heating systems.

(9) Member States shall explain how verification of statistically representative samples of actions is ensured, and specify the criteria used to define and select representative samples.

Annex X Table 3
Information on taxation measures

PaM Number	M	(this information shall be notified in a separate methodology description which will be published in March 2023)
Duration of taxation measure (point 5(k)(iv) of Annex V to Directive 2012/27/EU)	M	
Implementing public authority (point 5(k)(ii) of Annex V to Directive 2012/27/EU)	M	
Target sectors and segment of taxpayers (point 5(k)(i) of Annex V to Directive 2012/27/EU) ⁽¹⁾	M	
Source(s) of information (including the reference of the related law or other legal text(s))	M	
Expected savings for 2021-2030 and duration of the obligation period(s) (points 5(d) and 5(e) of Annex V to Directive 2012/27/EU)		
Expected cumulative end-use energy savings for the period 2021-2030 (ktoe)	M	
Expected new annual end-use energy savings (ktoe/year) ⁽²⁾	Miap	
2021	Miap	
2022	Miap	
2023	Miap	
2024	Miap	
2025	Miap	
2026	Miap	
2027	Miap	
2028	Miap	
2029	Miap	
2030	Miap	
Complementary explanations (when relevant)	V	
General information about the calculation methodology		
Calculation method(s) used ⁽³⁾	M	
Approach to calculating savings (point 4(a) of Annex V to Directive 2012/27/EU) ⁽⁴⁾	M	
Elasticities (short-term) (point 4(b) of Annex V to Directive 2012/27/EU) ⁽⁵⁾	Miap	
Elasticities (long-term) (point 4(b) of Annex V to Directive 2012/27/EU) ⁽⁶⁾	Miap	
How lifetimes are addressed in savings calculations (point 2(e) of Annex V to Directive 2012/27/EU) ⁽⁷⁾	M	
How is double counting with other policy measure(s) avoided? (point 4(c) of Annex V to Directive 2012/27/EU)	M	
Independence from the implementing public authority ⁽⁸⁾	M	
Complementary explanations and source(s) of information	V	

M = mandatory; Miap = mandatory if applicable; V = voluntary

(1) Member States shall specify the sectors (residential; services; industry; transport; other(s)) taken into account.

(2) Member States shall complete this field if expected new annual end-use energy savings are stable. If the new annual end-use energy savings are expected to change over time MS shall complete the fields per year.

(3) Member States shall explain the model used to calculate the savings, if short-term and/or long-term elasticities are taken into account and why, the variables taken into account in the model and how they were selected.

(4) Member States shall explain the method for analyzing the effects on energy consumption with and without the taxation measure (counterfactual); How the counterfactual is defined, and how it is ensured that at least the minimum EU levels of taxation are taken into account.

(5) When relevant, Member States shall explain how the short-term elasticities are defined, ensuring that they represent the responsiveness of energy demand to price changes. Member States shall mention the data sources to be used to define the elasticities.

(6) When relevant, Member States shall explain how the long-term elasticities are defined, ensuring that they represent the responsiveness of energy demand to price changes. Member States shall mention the data sources to be used to define the elasticities.

(7) Member States shall explain how the calculation methodology ensures that only savings from individual actions implemented after 31 December 2020 and before 31 December 2030 can be taken into account.

(8) Member States shall explain how the independence of the evaluator(s) of the energy savings from the taxation measure is ensured.

Annex X Table 4

Information about the lifetime of the individual actions eligible to the policies and measures reported for Article 7 of Directive 2012/27/EU

Eligible action	End-use sector	Assumed lifetime value (in years)	Assumptions about possible changes in the energy savings over time	Source or method used to estimate the lifetime and related assumptions
Miap	Miap	Miap	Miap	Miap
Action 1	(this information shall be notified in a separate methodology description which will be published in March 2023)			
Action 2				
Action 3				

Notes: Miap = mandatory if applicable

Annex XI Table 1

Energy savings achieved through Article 7 of Directive 2012/27/EU in year X-2

PaM number	Unit	Vulnerable households addressed ⁽²⁾	Final energy savings achieved through national EEOs referred to in Article 7a of Directive 2012/27/EU or alternative measures adopted in application of Article 7b of that Directive (excl. Article 7(4), point (c) of that Directive)			Of which final energy savings achieved by PaMs aimed at alleviation of ene Directive 2012/27/EU	
			Total annual end-use savings achieved in Year X-2 ⁽³⁾	Thereof, savings achieved in Year X-2 only from new actions that were implemented in Year X-2	Total cumulative end-use savings achieved from 2021 to Year X-2	Total annual enduse savings achieved in Year X-2 ⁽³⁾	Thereof, savings achieved in Year X-2 only from new actions that were implemented in Year X-2
M		M	M	M	M	Miap	Miap
<i>Group of policy measures for Built Environment</i>	ktoe	No	322,6	322,6	322,6		
<i>Group of policy measures for Industry</i>	ktoe	No	319,2	319,2	319,2		
<i>Group of policy measures for Agriculture</i>	ktoe	No	32,0	32,0	32,0		
<i>Group of policy measures for Mobility</i>	ktoe	No	77,8	77,8	77,8		

Notation: Reporting for calendar year X-2, with X = reporting year, M = mandatory; Miap = mandatory if applicable.

Notes:

(1) Member States shall report on national energy efficiency obligation scheme and alternative measures pursuant to Article 7a and 7b of Directive 2012/27/EU.

(2) Member States shall select from the following options whether vulnerable households, including those affected by energy poverty and, where appropriate, in social housing are included: Yes; No. For the definition on vulnerable households, guidance is provided in Article 28 of Directive (EU) 2019/944 and Article 3(3), point (d) of Regulation (EU) 2018/1999.

(3) Total annual end-use savings achieved in Year X-2, i.e. amount of savings from new actions implemented from 2021 to Year X-3 that continue delivering savings in X-2, taking into account savings lifetimes.

Energy poverty in line with Article 7(11) of	Amount of final energy savings achieved in accordance with Article 7(4), point (c) of Directive 2012/27/EU		
Total cumulative end-use savings achieved from 2021 to Year X-2	Total annual end-use savings achieved in Year X-2 ⁽³⁾	Thereof, savings achieved in Year X-2 only from new actions that were implemented in Year X-2	Total cumulative end-use savings achieved from 2021 to Year X-2
Miap	Miap	Miap	Miap

Annex XI Table 2

Energy savings achieved through Article 7 of Directive 2012/27/EU in year X-3⁽¹⁾

PaM number	Unit	Vulnerable households addressed ⁽²⁾	Final energy savings achieved through national EEOs referred to in Article 7a of Directive 2012/27/EU or alternative measures adopted in application of Article 7b of that Directive (excl. Article 7(4), point (c) of that Directive)			Of which final energy savings achieved by PaMs aimed at alleviation of energy poverty in line with Article 7(11) of Directive 2012/27/EU			Amount of final energy savings achieved in accordance with Article 7(4), point (c) of Directive 2012/27/EU		
			Total annual end-use savings achieved in Year X-3 ⁽³⁾	Thereof, savings achieved in Year X-3 only from <u>new actions</u> that were implemented in Year X-3	Total cumulative end-use savings achieved from 2021 to Year X-3	Total annual end-use savings achieved in Year X-3 ⁽²⁾	Thereof, savings achieved in Year X-3 only from <u>new actions</u> that were implemented in Year X-3	Total cumulative end-use savings achieved from 2021 to Year X-3	Total annual end-use savings achieved in Year X-3 ⁽²⁾	Thereof, savings achieved in Year X-3 only from <u>new actions</u> that were implemented in Year X-3	Total cumulative end-use savings achieved from 2021 to Year X-3
M		M	M	M	M	Miap	Miap	Miap	Miap	Miap	Miap
<i>PaM 1</i>	ktoe										
<i>PaM 2</i>	ktoe										
<i>Add further rows, as needed</i>	ktoe										

Notation: Reporting for calendar year X-3, with X = reporting year; M = mandatory; Miap = mandatory if applicable; Notes:

(1) X-3 shall not apply for the first progress reports in 2023.

(2) Member States shall select from the following options whether vulnerable households, including those affected by energy poverty and, where appropriate, in social housing are included: Yes; No. For the definition on vulnerable households, guidance is provided in Article 28 of Directive (EU) 2019/944 and Article 3(3), point (d) of Regulation (EU) 2018/1999.

(3) Total annual end-use savings achieved in Year X-3, i.e., amount of savings from new actions implemented from 2021 to Year X-4 that continue delivering savings in X-3, taking into account savings lifetimes.

Annex XII Table 1

Total renovated building floor area of heated and/or cooled buildings owned and occupied by the Member States' central government referred to in Article 5(1) of the Directive 2012/27/EU ⁽¹⁾

Reporting element	Specification	Unit	Year X-3		Year X-2		Additional information	
			Primary Energy Consumption (PEC)	and/or Final Energy Consumption (FEC)	PEC	and/or FEC		
PaM Number	Miap	n/a						
Total building floor area of buildings renovated	Miap	m ²	NA		NA		The Netherlands uses an alternative approach: at least 3% energy demand reduction from buildings owned and occupied by the Dutch government and public buildings	
Amount of energy savings achieved due to renovation of buildings in Year X-3 and X-2 ⁽²⁾	V	ktoe	NA	NA	NA	NA		
Sum of new energy savings achieved due to renovation of buildings, over the time period 2021 – Year X-3 (X-2)(i.e. corresponding to 3% renovation rate)	Miap	ktoe	NA	NA	NA	NA		

Notation: X = reporting year; Miap = mandatory if applicable; V = voluntary Notes:

(1) Member States shall report on policies and measures referred to in Article 5(1) of the Directive 2012/27/EU.

(2) Amount of energy savings can be estimated: deemed, metered, scaled or surveyed savings can be reported.

Annex XII Table 2

The amount of energy savings in eligible buildings owned and occupied by their central government as referred to in Article 5(6) of Directive 2012/27/EU ^{(1) (2)}

Reporting element	Specification	Unit	Year X-3		Year X-2		Additional information
			PEC	and/or FEC	PEC	and/or FEC	
PaM Number	Miap	n/a					
Amount of energy savings achieved in eligible buildings owned and occupied by their central government in Year X-3 and X-2 ⁽³⁾	Miap	ktoe	NA	1,9	NA	-0,2	Change in calculating method from 2020 onwards. Savings in 2020 and 2021 are expressed as lower consumption compared to the previous year
Sum of energy savings achieved in eligible buildings owned and occupied by their central government, over the time period 2021 – Year X-3 (X-2) (i.e. corresponding to 3% renovation rate)	Miap	ktoe	NA	3,5	NA	-0,2	Change in calculating method from 2020 onwards. Savings in 2020 and 2021 are expressed as lower consumption compared to the previous year

Notation: X = reporting year; Miap = mandatory if applicable Notes:

(1) Member States shall report on policies and measures referred to in Article 5(6) of the Directive 2012/27/EU.

(2) Without prejudice to Article 7 of Directive 2010/31/EU, Member States may opt for an alternative approach to paragraphs 1 to 5 of Article 5 of Directive 2012/27/EU, whereby they take other cost effective measures, including deep renovations and measures for behavioural change of occupants, to achieve an amount of energy savings in eligible buildings owned and occupied by their central government that is at least equivalent.

Amount of energy savings can be estimated: deemed, metered, scaled or surveyed savings can be reported.

	A	B	C	D	E	F	G	H	I	J	K
1	Annex XIII Table 1										
2	Progress towards financing										
3											
4			Initial investment assumptions (EUR)				Actual investments up to and including year X-2 (EUR)				
5		PaM number(s) the reporting concerns ⁽¹⁾	Eligible technologies/ solutions	Value	Price year	National public funding	Total EU funding	Of which RRF funding	Of which European Regional Development Fund and/or Cohesion Fund	Private funding (where available)	Price Year
6		M	V	M		M	M	M	M	Miav	M
7		85		€ 332.000.000	2020	€ 281.000.000				Not available	n/a
8		59		€ 430.347.000	2020	€ 177.970.166	(see above)			€ 310.289.573	2021
9		34		€ 71.120.000	2019	€ 69.282.628	(see above)			€ 153.537.037	2021
10		10		€ 58.923.000	2020	€ 54.692.217	(see above)			€ 139.828.842	2021

	A	B	C	D	E	F	G	H	I	J	K
11		2		€ 1.019.000.000	2020	€ 342.000.000 (see above)				€ 3.589.000.000	2021
12		23		€ 268.618.000	2020	€ 15.746.566 (see above)				€ 4.874.859	2021
13		122		€ 1.700.000.000	2022	€ 134.000.000 (see above)				€ 1.121.000.000	2021

	A	B	C	D	E	F	G	H	I	J	K
14		25		€ 748.368.000	2020	€ 110.500.000 (see above)				€ 146.137.727	2021
15		9		€ 37.715.000	2020	€ 12.994.886 (see above)				€ 20.669.065	2021
16		87		€ 1.014.000.000	2021	€ 208.821.440 (see above)				€ 6.098.643.784	2021

	A	B	C	D	E	F	G	H	I	J	K
17		75		€ 343.467.000	2020	€ 100.715.312 (see above)				€ 41.320.553	2021
18		120		€ 26.446.000.000	2022	n/a (concerns investments for the period 2022 - 2024/ 2022- 2031)	(see above)			n/a (concerns investments for the period 2022 - 2024/ 2022 - 2031)	2021
19		121		€ 20.000.000.000	2021	€ 73.000.000 (see above)				Data not available	2021
20		19		€ 15.800.000	2021	€ 7.987.652 (see above)				€ 5.601.919	2021

	A	B	C	D	E	F	G	H	I	J	K
21		42		€ 156.000.000	2019	€ 167.927.000 (see above)				€ 1.069.205.111	2021
22		68		€ 194.300.000	2020	€ 87.596.025 (see above)				€ 247.531.652	2021
23		80		€ 75.723.000	2021	€ 418.000 (see above)				€ 1.881.617	2021
24		11, 67		€ 18.985.756.000	2021	€ 3.125.655.000 (see above)				Not available	2021

	A	B	C	D	E	F	G	H	I	J	K
25		146		€ 22.000.000	2021	€ 12.889.411 (see above)				€ 103.063.754	2021
26		72		€ 252.000.000	2020	€ 41.764.180 (see above)				€ 497.518.060	2021
27		19		€ 16.600.000	2021	€ 16.352.513 (see above)				€ 19.562.081	2021
28		19		€ 2.797.000	2021	€ 4.275.845 (see above)				€ 2.914.875	2021
29		61		€ 82.000.000	2021	€ 65.475.022 (see above)				€ 131.251.838	2021
30		<i>Add further rows, as needed</i>									
31	Notation: X=Reporting year; M = mandatory; Miav = mandatory if available; V = voluntary Notes:										
32	(1) Member States to list all PaM numbers the reporting concerns. Separate rows should be used for reporting on different PaMs or groups of PaMs.										
33											

	L	M	N
1			
2			
3			
4		Actual investments still to be implemented (EUR)	
5	Description of source	Value	Price Year
6	M	M	
7	<p>Based on the 'Miljoenennota' (Budget Memorandum) 2021 and 2023 respectively, and therein indicated budgetary impact of the BPM/MRB exemption for electric vehicles (EV).</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Miljoenennota only provides detailed figures concerning the budgetary impact for the preceding and upcoming year, which does not cover the entire span of some PaMs. The BPM exemption for EV will continue at least until (and including) 2024. Sources: Budget Memorandum 2021 - https://www.rijksoverheid.nl/documenten/begrotingen/2020/09/15/miljoenennota-2021 Budget Memorandum 2023 - https://www.rijksoverheid.nl/onderwerpen/prinsjesdag/documenten/begrotingen/2022/09/20/bijlagen-miljoenennota-2023</p>	€ 527.000.000	2022
8	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 356.923.000	2022
9	<p>Based on the budget allocation (Source: https://zoek.officielebekendmakingen.nl/stcrt-2019-67313.html, https://wetten.overheid.nl/BWBR0040072/2021-02-06)</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 0	-
10	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 173.544.000	2022

	L	M	N
11	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p> <p>Note 4: Actual investments so far (up to and including 2021) are based on programme monitoring data <u>as of October/November 2022</u>. For certain PaMs such as this one, this may therefore still concern preliminary data for 2021 (as the last applications/requests for 2021 are still under review or in the process of being finalized).</p>	€ 1.094.000.000	2022
12	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p> <p>Note 4: Actual investments so far (up to and including 2021) are based on programme monitoring data <u>as of October/November 2022</u>. For certain PaMs such as this one, this may therefore still concern preliminary data for 2021 (as the last applications/requests for 2021 are still under review or in the process of being finalized).</p>	€ 148.220.000	2022
13	<p>Based on the 'Miljoenennota 2023' (Budget Memorandum), and therein indicated capital injection by the government into Invest-NL from 2022 to 2026. (Source: https://www.rijksoverheid.nl/onderwerpen/prinsjesdag/documenten/begrotingen/2022/09/20/bijlagen-miljoenennota-2023), and the value of disbursed investment volume and mobilised capital based on the the Invest-NL progress report (Source: https://www.rijksoverheid.nl/documenten/rapporten/2022/06/17/invest-nl-voortgangverslag-2021). It should be noted that the total value under 'Initial investment assumptions' represents the <u>available budget of Invest-NL as a whole</u>, whereas in fact only part of this budget will specifically go towards energy- and climate-related measures. There is no dedicated share of the total budget that must go towards this area, but it is nonetheless indicative that by the end of 2021 Invest-NL had a pipeline of applications of which more than 75% were in the field of energy transition.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 1.492.000.000	2022

	L	M	N
14	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027, which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 1.191.100.000	2022
15	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 33.834.000	2022
16	<p>Based on the budget allocation in the 'Klimaatnota 2021' for the period 2020 - 2026 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2021/10/28/bijlage-2-tot-en-met-7-bij-de-klimaatnota-2021); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p> <p>Note 4: Actual investments so far (up to and including 2021) are based on programme monitoring data <u>as of October/November 2022</u>. For certain PaMs such as this one, this may therefore still concern preliminary data for 2021 (as the last applications/requests for 2021 are still under review or in the process of being finalized).</p>	€ 1.014.000.000	2022

	L	M	N
17	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here : This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here : The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3 : The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p> <p>Note 4 : Actual investments so far (up to and including 2021) are based on programme monitoring data <u>as of October/November 2022</u>. For certain PaMs such as this one, this may therefore still concern preliminary data for 2021 (as the last applications/ requests for 2021 are still under review or in the process of being finalized).</p>	€ 332.799.000	2022
18	<p>Estimate based on the biennial Investment Plans (IP) submitted by grid operators in 2022 for the grids they manage, in which all necessary expansion and replacement investments are described for the coming ten years (as they are required to do under the Electricity and Gas Act (amended in the Energy Transition Progress Act). These expected investments are described quantitatively for the period 2022 - 2024 and (mostly) only qualitatively for the years beyond. The figures here offer a rough estimate based on the sum of the collective investments described in the IPs. It should be noted that this concerns the entirety of investments described by grid operators (for instance including routine repair and replacement costs). These plans were submitted by the regional grid operators Liander, Stedin, Coteq, Enexis, Rendo, Westland Infra, alongside TenneT and Gasunie Transport Services (GTS) which are both wholly owned by the Dutch state.</p> <p>Note 1 - Applicable to all PaMs listed here : This table concerns available investment data on PaMs for the period following the</p>	€ 26.446.000.000	2022
19	<p>Based on the budget allocation and the Groeifonds Annual Report (Source: https://www.nationaalgroeifonds.nl/documenten/rapporten/2022/04/13/jaarverslag-adviescommissie-nationaal-groeifonds). It should be noted that the total value under 'Initial investment assumptions' <u>represents the available budget of the NGF as a whole</u>, whereas in fact only part of this budget will specifically go towards energy- and climate-related projects (there is no dedicated share of the total budget that must go towards such projects, as proposals are evaluated on their merits on a case-by-case basis). The figures under 'Actual investments up to ..' and 'Actual investments still to be implemented' therefore currently <u>only reflect the investments that are actually reserved/ committed</u> for energy- or climate specific measures (namely investments associated with the projects 'GroenvermogenNL', 'NieuweWarmteNu!', 'Luchtvaart in transitie' and 'Zero-emissie binnenvaart batterij-elektrisch'). It is likely that the overall estimate for 'investments still to be implemented' will be higher over time as more proposals for energy/climate-projects are submitted in the coming years.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 1.398.000.000	2022
20	<p>Based on the budget allocation and monitoring data as related to <u>only</u> the scope of 'Topconsortia voor Kennis en Innovatie (TKI) Energie' (Top Consortia for Knowledge and Innovation in Energy), i.e. the share of PPS investments that specifically went towards energy research and innovation. It should be noted that PPS funding is also available for others areas of research and innovation; however as these are not necessarily of direct relevance in the context of the NECP, these other investments have been excluded here (public/private investments related to PPS as a whole, i.e. without an energy focus, are larger). For more detail, see: https://www.rvo.nl/subsidies-financiering/pps-toeslag-onderzoek-en-innovatie</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 20.000.000	2022

	L	M	N
21	<p>Based on the budget allocation (https://zoek.officielebekendmakingen.nl/stcrt-2021-2096.html) and estimates from programme monitoring data .</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: Actual investments so far (up to and including 2021) are based on programme monitoring data as of November 2022. For certain PaMs such as this one, this therefore stills concern preliminary data for 2021 (as applications/ requests for 2021 are still under review).</p>	€ 150.000.000	2022
22	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 137.510.000	2022
23	<p>Based on the budget allocation in the 'Klimaatnota 2021' for the period 2020 - 2026 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2021/10/28/bijlage-2-tot-en-met-7-bij-de-klimaatnota-2021); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 48.000.000	2022
24	<p>Based on the budget allocation in the 'Klimaatnota 2021' for the period 2020 - 2026 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2021/10/28/bijlage-2-tot-en-met-7-bij-de-klimaatnota-2021); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Regarding private funding related to this PaM, it should be noted that the SDE+(+) is a subsidy for the generation of renewable energy or the reduction of carbon dioxide, which subsidizes the unprofitable component of each technology (i.e. the difference between the cost of the technology and the market value of the product generated). Due to the long timespan of the projects and the link with the currently strongly fluctuating energy prices, it was not possible to include a sufficiently accurate and complete estimate of the private investments associated with this PaM in this iteration.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. <u>for 2020 and beyond</u>.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 19.265.946.000	2022

	L	M	N
25	<p>Based on the budget allocation (Source: https://wetten.overheid.nl/BWBR0044795/2023-01-01), alongside monitoring data on actual investments so far (up to and including 2021).</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 55.000.000	2022
26	<p>Based on the budget allocation in the 'Klimaatnota 2020' for the period 2019 - 2025 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2020/10/30/klimaatnota-bijlage-2-tot-en-met-6); monitoring data on investments realized up to and including 2021; and looking forward with the 'Klimaatnota 2022' for the period 2021 - 2027 (Source: https://www.rijksoverheid.nl/documenten/publicaties/2022/11/01/klimaatnota-2022), which includes any potential budgetary adjustments following the 'Klimaatnota 2020'.</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p> <p>Note 3: The Klimaatnota applies a forward time horizon of five years, which may not always cover the entire span of some PaMs.</p>	€ 269.775.000	2022
27	<p>Based on the budget allocation (Source: https://zoek.officielebekendmakingen.nl/stcrt-2022-8113.html) alongside monitoring data on actual investments so far (up to and including 2021).</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 10.600.000	2022
28	<p>Based on the budget allocation (Source: https://zoek.officielebekendmakingen.nl/stcrt-2022-8113.html , https://zoek.officielebekendmakingen.nl/stcrt-2022-16443.html) alongside monitoring data on actual investments so far (up to and including 2021).</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 4.400.000	2022
29	<p>Based on the budget allocation (Source: https://zoek.officielebekendmakingen.nl/stcrt-2022-16443.html) alongside monitoring data on actual investments so far (up to and including 2021).</p> <p>Note 1 - Applicable to all PaMs listed here: This table concerns available investment data on PaMs for the period following the submission of the first NECP, i.e. for 2020 and beyond.</p> <p>Note 2 - Applicable to all PaMs listed here: The 'Initial investment assumptions' and 'Actual investments still to be implemented' refer only to expected/remaining national public funding, due to the availability of data. Figures for 'private funding' are only incorporated under 'Actual investments', as available.</p>	€ 71.500.000	2022
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A	B	C	D	E	F	G	H	I	J	K	L	
1	Annex XIV Table 1											
2	Impacts on air quality and emissions to air ⁽¹⁾											
3												
4	PaM number(s) the reporting concerns ⁽²⁾	Reference year ⁽³⁾	Affected pollutant(s) ⁽⁴⁾	Quantified expected emission impacts ⁽⁵⁾ (kt/yr)					Qualitative assessment of	Details of the methodologies used for analysis ⁽⁷⁾		
5				t	t+5	t+10	t+15	t+20				
6	M	M	M	Miav					V/M	Miav		
7	Group of policy measures for Electricity	2020	Nox	-0,5	-7,5	-8,0	-4,9				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
8	Group of policy measures for Industry	2020	Nox	-1,5	-6,2	-8,0	-8,9				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
9	Group of policy measures for Mobility	2020	Nox	-12,3	-21,8	-28,6	-36,3				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
10	Group of policy measures for Built Environment	2020	Nox	-1,3	-2,8	-3,3	-3,8				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
11	Group of policy measures for Agriculture	2020	Nox	-2,9	-3,1	-3,3	-3,3				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
12	Group of policy measures for Electricity	2020	NH3	0,0	0,0	0,0	0,0				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
13	Group of policy measures for Industry	2020	NH3	0,4	0,6	0,7	0,8				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
14	Group of policy measures for Mobility	2020	NH3	1,1	0,7	-0,1	-1,1				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
15	Group of policy measures for Built Environment	2020	NH3	-0,1	0	0	0				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
16	Group of policy measures for Agriculture	2020	NH3	-3,2	-9,5	-12,9	-15,9				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
17	Group of policy measures for Electricity	2020	PM2,5	0,1	-0,1	-0,1	0,1				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
18	Group of policy measures for Industry	2020	PM2,5	0,1	0,2	0,2	0,3				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
19	Group of policy measures for Mobility	2020	PM2,5	-0,6	-1	-1,2	-1,5				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
20	Group of policy measures for Built Environment	2020	PM2,5	-0,4	-0,8	-1,1	-1,6				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	
21	Group of policy measures for Agriculture	2020	PM2,5	0	0	0	0				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)	

	A	B	C	D	E	F	G	H	I	J	K	L
22		Group of policy measures for Electricity	2020	SO2	1,0	-1,3	-1,5	-0,9				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
23		Group of policy measures for Industry	2020	SO2	1,6	1,7	0,5	-0,2				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
24		Group of policy measures for Mobility	2020	SO2	0,1	0,0	0,0	-0,1				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
25		Group of policy measures for Built Environment	2020	SO2	0,0	0,1	0,1	0,1				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
26		Group of policy measures for Agriculture	2020	SO2	0,0	0,0	0,0	0,0				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
27		Group of policy measures for Electricity	2020	NMVOS	-0,9	-1,3	-1,6	-1,1				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
28		Group of policy measures for Industry	2020	NMVOS	1,4	1,8	2,2	2,6				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
29		Group of policy measures for Mobility	2020	NMVOS	-0,2	-5,7	-10,5	-15,1				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
30		Group of policy measures for Built Environment	2020	NMVOS	-32,0	-31,5	-31,4	-31,7				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
31		Group of policy measures for Agriculture	2020	NMVOS	0,0	0,0	0,0	0,0				The projected emissions according to "Geraamde ontwikkelingen in nationale emissies van luchtverontreinigende stoffen 2023" by PBL (2023) were compared to the baseyear 2020. The difference between the projection and the baseyear is considered as the impact of the group of policy measures for a specific sector. For this purpose, the EU definition of emissions were used (according to the NEC-directive)
32		Notation: t signifies the first future year ending with 0 or 5 immediately following the reporting year; M = mandatory; Miav = mandatory if available; V = voluntary.										
33		Notes:										
34		(1) Member States shall report on the quantification of the impact of the policies and measures, or groups of policies and measures, as far as possible.										
35		(2) Member States to list all PaM numbers the reporting concerns. Separate rows should be used for reporting on different PaMs or groups of PaMs.										
36		(3) Reference year is the base year used to project emissions.										
37		(4) Member States to select from the following pollutants (additional pollutants may be added and specified under 'other'): SO2, NOx, NMVOC, NH3, PM2,5, other.										
38		(5) Member States shall report expected increases in emissions as positive numbers or ranges, whereas expected reductions in emissions are shown as negative numbers or ranges.										
39		(6) In case no quantified impacts are available, a qualitative assessment is mandatory (M). If impacts are quantified, the qualitative assessment is voluntary (V).										
40		(7) The description shall include information on the methodology, such as models used, the baseline against which impacts are compared and underlying data.										
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4	Qualitative description of uncertainties (where available)	Documentation/ Source of methodologies	General comments
5	V	Miav	V
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7		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2023	
8		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2024	
9		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2025	
10		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2026	
11		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2027	
12		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2028	
13		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2029	
14		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2030	
15		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2031	
16		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2032	
17		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2033	
18		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2034	
19		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2035	
20		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2036	
21		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2037	

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22		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2038	
23		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2039	
24		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2040	
25		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2041	
26		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2042	
27		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2043	
28		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2044	
29		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2045	
30		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2046	
31		https://www.pbl.nl/publicaties/geraamde-ontwikkelingen-in-nationale-emissies-van-luchtverontreinigende-stoffen-2047	
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	A	B	C	D	E	F	G	H	I
1	Annex XV Table 1								
2	Policies and measures to phase out energy subsidies, in particular for fossil fuels								
3									
4	Subsidy for fossil fuel or for other ⁽¹⁾	Name of policy (English)	Name of policy (local language)	Sector ⁽²⁾	Purpose ⁽³⁾	Carrier ⁽⁴⁾	Category ⁽⁵⁾	Implementation	
5								Start ⁽⁶⁾	
6	M	M	M	M	M	M	M	M	
7	Other	DEI+ Demonstration scheme Energy & Climate innovations	DEI+ Demonstratie energie- en klimaatinnovatie	Economic sectors	Other	RES	Grant	2019	
8	Other	Demonstration schema Climate technologies & innovations in transport	DKTI Demonstratieregeling Klimaattechnologieën en -innovaties in transport	Transport	Other	RES	Grant	2017	
9	Other	Subsidy schemes on energy efficiency and renewable energy in horticulture (EG)	EG Regeling investeringen in energie-efficiëntie glastuinbouw	AGRI-Crop	Energy-efficiency	RES	Grant	2007	
10	Other	EIA Energy Investment Tax Allowance scheme	EIA Energie-investeringsaftrek regeling	Economic sectors	Energy-efficiency	All energies	Tax reduction	1997	
11	Other	Compensation for the indirect costs of EU ETS	Compensatieregeling Indirecte emissiekosten ETS	INDU -energy intensive industry	Other	All energies	Others	2013	
12	Other	HER Subsidy scheme renewable energy	Subsidie Hernieuwbare Energie (HER)	Cross sectors	Other	RES	Grant	2014	
13	Other	ISDE Investment subsidies small renewable energy systems	ISDE Investeringssubsidie Duurzame Energie en Energiebesparing (ISDE/ISDE-KA)	Households	Energy-efficiency	RES	Grant	2015	
14	Other	MEI Market introduction for energy innovations horticulture	MEI Marktintroductie energie-innovaties glastuinbouw	AGRI-Crop	Energy-efficiency	RES	Grant	2007	
15	Other	MIA/VAMIL Environmental investment allowance/Arbitrary depreciation of environmental investment schemes	MIA Vamil Regelingen Milieu-investeringsaftrek & Willekeurige afschrijving milieu-investeringen	Cross sectors	Other	RES	Tax reduction	1995	
16	Other	Mission oriented R&D and innovation	MOOI (regeling Missiegedreven Onderzoek, Ontwikkeling en Innovatie)	Cross sectors	Other	RES	Grant	2020	
17	Other	National Growth Fund	Nationaal Groeifonds	Cross sectors	Other	RES	Grant	2020	
18	Other	Public Private Partnership	Publiek Private Samenwerking (PPS)	Cross sectors	Other	RES	Grant	N/A	
19	Other	Sustainability scheme Reduction Landlord charges for Housing Associations	RVV Verduurzaming (Regeling Vermindering Verhuurderheffing Verduurzaming)	Households	Other	RES	Tax reduction	2019	
20	Other	Stimulation scheme natural gas free rental housing (SAH, part of initial approach " Starter motor")	SAH Stimuleringsregeling aardgasvrije huurwoningen (onderdeel Startmotor)	Households	Other	RES	Grant	2020	
21	Other	Subsidy scheme (local) Cooperative Energy production (SCE)	Subsidieregeling Coöperatieve Energieopwekking (SCE)	Cross sectors	Other	RES	Grant	2021	
22	Other	SDE++ subsidy scheme for Stimulation of Sustainable Energy Production and Climate Transition	SDE++ Stimuleringsregeling Duurzame Energieproductie en klimaattransitie	Cross sectors	Other	RES	Grant	2020	

	A	B	C	D	E	F	G	H	I
23		Other	Subsidy Scheme Zero Emission Company Cars	SEBA Subsidieregeling Emissieloze Bedrijfsauto's	Transport	Other	RES	Grant	2021
24		Other	SEPP Subsidy scheme electric passenger cars	SEPP Subsidieregeling Elektrische Personenauto's Particulieren	Transport	Other	RES	Grant	2020
25		Other	Topsector Energy Studies (TSE Studies)	Topsector Energie Studies (TSE Studies)	Cross sectors	Other	RES	Grant	2012
26		Other	Accelerated Climate-related Investments in Industry (VEKI)	VEKI Versnelde klimaatinvesteringen industrie	INDU	Energy-efficiency	RES	Grant	2019
27		Fossil	Tax exemption for energy intensive processes	vrijstellingen voor energie-intensieve processen	INDU -energy intensive industry	Other	All energies	Tax exemption	2015
28		Fossil	Tax rebate large commercial users	Teruggaaf energie-intensieve industrie	INDU -energy intensive industry	Other	All energies	Tax refund	2004
29		Other	Energy tax rebate for religious institutions and for non-profit organisations	Teruggaaf kerkgebouwen en non-profit	Non Profit	Other	All energies	Tax refund	2000
30		Fossil	Input exemption coal tax for dual use	Inputvrijstelling kolenbelasting voor dual gebruik	Cross sectors	Support to production	All energies	Tax exemption	N/A
31		Fossil	Input exemption coal tax for electricity production	Inputvrijstelling kolenbelasting voor elektriciteitsopwekking	ENER-conversion/ electricity production	Support to production	All energies	Tax exemption	2016
32		Fossil	Input exemption from energy tax for electricity production	Inputvrijstelling energiebelasting voor elektriciteitsopwekking	ENER-elektricity production	Support to production	All energies	Tax exemption	2016
33		Other	Reduced energy tax rate for horticulture	Verlaagd tarief glastuinbouw	AGRI-Crop	Other	All energies	Tax reduction	2000
34		Fossil	Excise tax exemption on kerosene consumed in domestic and international air traffic	Vrijstelling gebruik van kerosine in het nationale en internationale luchtverkeer	TRANS-Air Transport	Other	Fossil fuels	Tax exemption	N/A
35		Fossil	Excise tax exemption on petroleum products consumed in water navigation within EU	Vrijstelling gebruik van diesel- en stookolie voor de commerciële vaart in de binnen wateren en de communautaire wateren	TRANS-Water Transport	Other	Fossil fuels	Tax exemption	N/A
36		Fossil	Other non fiscal fossil fuel policies	Overige overheidsmaatregelen mbt fossiele brandstoffen (niet fiscaal)	Cross sectors	Other	Fossil fuels	Others	N/A

Notation: X=Reporting year; M = mandatory; Miav = mandatory if available Notes:

(1) Member State shall select from the following options (additional options may be added and specified under 'Other'): Fossil fuel; Other (including subsidies for electricity, nuclear, renewables, and energy efficiency). In case of subsidies for the generation of electricity from fossil fuel sources, these should be included under the fossil fuel category.

(2) Member State shall select from the following options: Energy sector (if possible, select from the following sub-sectors: ENER-Fossil fuel extraction; ENER-Energy crops; ENER-Conversion; ENER-Conversion-Refining; ENER-Conversion-LNG; ENER-Conversion-CHP; ENER-Conversion-Electricity production; ENER-Conversion-Heating & Cooling; ENER-Conversion-Liquid biofuels;

ENER-Conversion-Biogas production; ENER-Conversion-Hydrogen production; ENER-Infrastructure; ENER-Infra-Transmission; ENER-Infra-Distribution; ENER-Infra-T&D; ENER-Infra-Storage; ENER-Assets decommissioning; ENER-Waste management; ENER-Retail); Agriculture (if possible, select from the following sub-sectors: AGRI-Crop, animal production, hunting; AGRI-Forestry and logging; AGRI-Fishing and aquaculture); Construction; Mining; Industry (if possible, select from the following sub-sectors: INDU-Energy-intensive industry (industrial sectors that are covered by the EU Emissions Trading System); INDU-Non energy intensive-industry); Transport (TRANS-Air transport; TRANS-Rail transport; TRANS-Road transport; TRANS-Water transport; TRANSPublic transport); Services (tertiary sector); Households (if possible, select from the following sub-sectors: Households; HH-Low income) ; Public; Cross sectors (multiple sectors); Economic sectors.

	A	B	C	D	E	F	G	H	I
43			(3) Member State shall select from the following options (additional options may be added and specified under 'Other'): Support to energy demand; Support to energy efficiency; Support to industry restructuring; Support to infrastructure; Support to production; Other.						
44			(4) Member State shall select one or more from the following options: Fossil fuels (if possible, select from the following sub-carriers: FF-All fossil fuels; FF-Several fossil fuels; FF-Coal / Lignite; FF-Natural gas; FF-Mine gas; FF-Shale gas; FF-Crude oil & NGL; FF-Oil & Gas; FF-Petroleum products; FF-PP-Gasoil; FF-PP-Blended gasoil; FF-PP-Gasoline; FF-PP-Leaded Gasoline; FF-PP-Unleaded Gasoline; FF-PP-Blended gasoline; FF-PP-LPG; FF-PP-Kerosene; FF-PP-Fossil-based marine fuels; FF-PP-Heavy fuel oil (HFO); FF-Peat; All energies; Heat; Electricity; Nuclear; Bioenergy (if possible, select from the following sub-carriers: RES-Biogas; RES-Biomass & biogas; RES-Biomass (solid); RES-Biomass MSW; RES-Liquid biofuels; RES-Liquid biofuels-Biodiesel; RES-Liquid biofuels-Bioethanol); RES (if possible, select from the following sub-carriers: RES-All; RES-Several; RES-Geothermal; RES-Heat; RES-Hydro; RES-Marine energy; RES-Solar; RES-Wind; RES-Wind offshore; RES-Wind onshore); Hydrogen (if possible, select from the following sub-carriers: FF-All fossil fuels; RES-Biogas).						
45			(5) Member State shall select from the following options (additional options may be added and specified under 'Others'): Direct transfers (if possible, select from the following sub-categories: Soft loans; Grants; Others); Tax expenditures (Tax reduction; Tax exemption; Tax refund; Tax credits; Tax allowance; Others); Under-pricing of goods/services (if possible, select from the following subcategories: Under-pricing of government-owned resources or land; Under-pricing of government-owned infrastructure; Under-pricing of other government-provided goods or services); Income or price supports (if possible, select from the following sub-categories: Capacity payments (electricity capacity mechanisms); Biofuels blending mandate; RES quotas with tradable certificates; Differentiated grid connection charges; Energy efficiency obligations; Interruptible load schemes; Contract for Difference (CfD); Feed-in premiums; Feed-in tariffs; Consumer price guarantees (cost support);						
46			Consumer price guarantees (price regulation); Producer price guarantees (price regulation); Others						
47			(6) Year policy enabling subsidy was first implemented.						
48			(7) Year when the enabling policy ends (is no longer in effect or implementation), at which time subsidies can no longer be paid.						
49			(8) Subsidy volumes paid in nominal currency values.						
50			(9) Member State shall select from the following options (one option can be selected): EUR; BGN; HRK; CZK; DKK; HUF; PLN; RON; SEK.						

	J	K	L	M
1				
2				
3				
4	in period	Subsidy volumes		
5	Finish ⁽⁷⁾	X-3 ⁽⁸⁾	X-2 ⁽⁸⁾	Currency ⁽⁹⁾
6	M	M _{iaV}	M	M
7	tbd	95 Mln	71 Mln	EUR
8	2021	N/A	37 Mln	EUR
9	tbd	10 Mln	45 Mln	EUR
10	tbd	144 Mln	198 Mln	EUR
11	tbd	110 Mln	179 Mln	EUR
12	2021	38 Mln	32 Mln	EUR
13	2030	101 Mln	130 Mln	EUR
14	tbd	6 Mln	7 Mln	EUR
15	tbd	149 Mln	139 Mln	EUR
16	tbd	98 Mln	101 Mln	EUR
17	2025	N/A	73 Mln	EUR
18	N/A	N/A	8 Mln	EUR
19	tbd	N/A	168 Mln	EUR
20	2023	29 Mln	21 Mln	EUR
21	2030	0	0,4 Mln	EUR
22	2025	1633 Mln	2341 Mln	EUR

	J	K	L	M
23	2025	0	13 Mln	EUR
24	2025	N/A	42 Mln	EUR
25	tbd	7 Mln	12 Mln	EUR
26	tbd	14 Mln	51 Mln	EUR
27	tbd	116 Mln	135 Mln	EUR
28	2020	9 Mln	0 Mln	EUR
29	tbd	37 Mln	37 Mln	EUR
30	tbd	25 Mln	26 Mln	EUR
31	tbd	86 Mln	86 Mln	EUR
32	tbd	687 Mln	729 Mln	EUR
33	tbd	138 Mln	136 Mln	EUR
34	N/A	1335 Mln	N/A	EUR
35	N/A	1612 Mln	1663 Mln	EUR
36	N/A	73 Mln	N/A	EUR
37				
38				
39				
40				
41				
42				

Annex XVI Table 1

Functioning of the system of guarantees of origin for electricity, gas and heating & cooling from RES

Reporting element	Specification	Unit	Year	
			X-3	X-2
Electricity				
Guarantees of origin – issued ⁽¹⁾	Miap	Number	25.818.000	32.140.000
Guarantees of origin – canceled ⁽²⁾	Miap	Number	56.281.000	63.636.000
Guarantees of origin - resulting annual national renewable energy consumption ⁽³⁾	Miap	GWh	56 281 ^(a)	63 636 ^(a)
Gas				
Guarantees of origin - issued	Miap	Number	1.964.076	2.198.484
Guarantees of origin - canceled	Miap	Number	1.236.088	1622880
Guarantees of origin - resulting annual national renewable energy consumption ⁽⁴⁾	Miap	GWh	1236 ^(b)	1623 ^(b)
Heating/cooling				
Guarantees of origin - issued	Miap	Number	8134	9025
Guarantees of origin - canceled	Miap	Number	1604	1427
Guarantees of origin - resulting annual national renewable energy consumption (4)	Miap	GWh	1.6 ^(c)	1.4 ^(c)
Measures taken to ensure reliability	Miap	n/a	<ul style="list-style-type: none"> • Registration of production plants only possible after approval network operator (E, G) or measuring body (H&C) • Registration of production plants is in case of subsidies shared with RVO • Amount of renewable energy is verified & reported by network operator (E, G) or independent measuring company (H&C) • Composition of (bio)fuels independently verified by auditors • Certifying body Certiq (E,H,C) is member of Association of Issuing Bodies), which has implemented a system of regularly occurring audits. • Certifying body Vertogas (G) is member of ERGaR (www.ergar.org), for which Vertogas has designed a platform of cross border trades of GOs^(d). • Independent final overall check by accountant. 	

Measures taken to protect against fraud of the system <i>E=Electricity</i> <i>H=Heat</i> <i>C=Cold</i> <i>G=Gas</i>	Miap	n/a	<ul style="list-style-type: none"> • Automated checks to ensure that GOs can only be canceled once (E,H,C) • The Authority for Consumers & Markets (ACM) monitors labelling of renewable electricity. • VAT on the trade of GO's is reverse charged to prevent intra-community VAT-fraud. • CertiQ uses 'know your customer procedures' when opening trading accounts for GO's (E,H,C).
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Notation: X = reporting year; Miap = mandatory if applicable Notes:

- (1) The number of guarantees of origin issued for energy that is produced from renewable energy sources in the Member State during the reporting period, based on the time of production of the energy.
- (2) The number of guarantees of origin from renewable energy sources cancelled for energy that is consumed in the Member State during the reporting period.
- (3) The quantity of energy consumption for which the origin has proven to originate from renewable energy sources, being determined as the cancelled guarantees of origin for energy consumption from renewable energy sources in the reporting period + the renewable share of the residual mix multiplied by the total energy consumption for the reporting period that is not covered with guarantees of origin cancellation.
- (4) The quantity of energy consumption for which the origin has proven to originate from renewable energy sources, being determined as the cancelled guarantees of origin for energy consumption from renewable energy sources in the reporting period + the energy consumption from renewable energy sources through other reliable tracking mechanisms that avoid double counting (which may include "the renewable share of the residual mix multiplied by the total energy consumption for the reporting period that is not covered with guarantees of origin cancellation nor other reliable tracking mechanisms").

(a) In the Netherlands, all electricity (including renewables and non-renewables) must legally be labelled with GOs, there is no amount of energy to add from the residual mix.

(b) Because green gas GOs can be cancelled by a trader (on behalf of an enduser) on their own account the consumption (domestic or foreign) cannot be determined.

(c) In the Netherlands, the GO- regulation (art. 25a) prescribes that a GO for heating or cooling can only be used as a proof for the supply of renewable, thermal energy when this energy is feeded into the same grid. Therefore we can say that the total energy consumption is equal to the provided GO's. Cooling from renewable sources was not yet covered with GO's in the reporting years but starts in 2022. The amount of related energy in the residual mix was practically nil in the reporting years.

(d) In December 2017, ERGaR has applied for the recognition by the European Commission of the underlying mass balance system and voluntary scheme in accordance with the Renewable Energy Directive, Fuel Quality Directive and other related legislative documents. The documentation currently is under negotiation with the European Commission.

Annex XVI Table 2

Changes in commodity prices and land use associated with use of biomass and other forms of energy from renewable sources

<p>Please report changes in commodity prices and land use within the Member State associated with its increased use of biomass and other forms of energy from renewable sources⁽¹⁾⁽²⁾</p>	<p>Miap</p>	<p>The commodity prices of biomass and wood products in general have risen since the start of the war in Ukraine, due to a combination of the high gas prices and decreased supply.</p>
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Miap = mandatory if applicable

(1) Changes in commodity prices to be reported at national level (or subnational if applicable). These include any shifts in prices related to food and feed crops. (increased price for food/feed product due to increased energy use of the same feedstock). These also include shifts in prices related to increased demand for forest biomass for energy use – i.e., shifts in prices for material products made from waste and residue due to increased energy use and competition for feedstock.

(2) For land use change, please report only the actual change in land used for biomass consumed for energy, not all agricultural land.

Annex XVI Table 3

Estimated excess production of energy from renewable sources compared to the national trajectory towards the 2030 target

Reporting element	Specification	Unit	2022	2023	2024	2025	2026	2027	2028	2029	2030
Estimated excess production resulting from domestic renewable sources (A)	Miap	ktoe			94	419	689	955	1345	1730	2119
Estimated production resulting from joint projects between Member States or joint projects between Member States and third countries which counts toward the national contribution towards the 2030 target (B)	Miap	ktoe									
Estimated production resulting from joint support schemes which counts toward the national contribution towards the 2030 target (C)	Miap	ktoe									
Estimated excess production overall (excluding future statistical transfers) (=A+B+C)	Miap	ktoe			94	419	689	955	1345	1730	2119
Estimated deficit production resulting from domestic renewable sources (D)	Miap	ktoe	620	237							

Miap = mandatory if applicable

Annex XVI Table 4

Technological development and deployment of biofuels made from feedstocks listed in Annex IX to Directive 2018/2001

<p>Please report technological development and deployment of biofuels in your country made from feedstocks listed in Annex IX to Directive 2018/2001 ⁽¹⁾</p>	<p>M</p>	<p>In the Netherlands there are two production facilities for biofuels using annex IX feedstock. One produces biodiesel (HVO) and the other bioethanol. The HVO production is 1 Mton per year. The bioethanol is on a relatively small scale and amounts 32 kton per year. In 2021 about 50,000,000 m³ (1.7 PJ) of biogas, produced from annex IX feedstock, was brought on the Dutch transport fuel market. Netherlands Statistics and NEa both report the total sum of biogas and bioLNG.</p> <p>Relevant technology developments in the Netherlands are:</p> <ul style="list-style-type: none"> -Upgrading of pyrolysis oil from woody biomass for the production of Sustainable Aviation Fuels (BTG, SkyNRG, Delft University), TRL5, ongoing research project -Upgrading of pyrolysis oil from woody biomass for the production of Sustainable Marine Fuels (BTG, Good Fuels, Eindhoven University), TRL 5, ongoing research project -Production of sustainable transport fuels by gasification of pyrolysis oil from woody biomass (BTG, Delft University), TRL 4, ongoing research project -Co-processing of pyrolysis oil from woody biomass in existing refineries (BTG, Groningen University, Utrecht University), TRL6 -Production of sustainable fuels from lignin, using the ‘Goldilocks’ process and hydrogenation (Vertoro, Shell, Eindhoven University), TRL 4, ongoing research project -Production of jet-fuels via IBE-fermentation and chain extension (Q8 Research, Good Fuels, HyGear, IMENZ, Wageningen University, TNO), TRL4, project ended recently with proof of principle, follow up to be determined -Renewable jet fuel range hydrocarbons from biomass residues derived lignin (Q8 Research, Vertoro, Sekab, Renewi, Wageningen University, Eindhoven University), TRL4, ongoing research project. -Feasibility study on the production of bio-ethanol from woody biomass via biorefinery, in preparation of a demonstration project (Biondoil), completed.
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Notes:

M = mandatory

(1) Deployment can be reported in installed capacities and actual production of different advanced biofuels based on different technologies. As well as the number of installations and feedstock type. Development could list the different technology pathways and give a brief description of their status in a qualitative manner (development phase, how close to market uptake, recent developments, investments).

Annex XVI Table 5

Estimated impact of the production or use of biofuels, bioliquids and biomass fuels on biodiversity, water resources, water availability and quality, soils and air quality

Reporting element	Production of biofuels, bioliquids, biomass				Use of biofuels, bioliquids, biomass			
	Estimated impact of production of biofuels, bioliquids, biomass ⁽¹⁾	Unit	Time period	Description of methods to estimate the impact ⁽¹⁾	Estimated impact of use of biofuels, bioliquids, biomass ⁽¹⁾	Unit	Time period	Description of methods to estimate the impact ⁽¹⁾
	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav
Biodiversity	See text below ^(a)							
Water stock (ground water, surface water) & water availability	See text below ^(a)							
Soils	See text below ^(a)							
Air quality	See text below ^(a)							

Notes:

Miav = mandatory if available

(1) Estimated impacts and the methods used can be described in quantitative and qualitative manner. If quantitative impacts are described, please do specify the unit and the time period they relate to.

(a) For biofuels in transport the NEa report over 2021 (NEa (2021) (Report Renewable Energy in transport in The Netherlands (Dutch only)

<https://www.emissieautoriteit.nl/onderwerpen/algemeen-hernieuwbare-energie-voor-vervoer/documenten/publicatie/2022/07/01/totaalrapportage-energie-voor-vervoer-2021>) shows that only a very limited amount (1,3%) of conventional fuels, based on food and feed crops, were brought on the market. The feedstock for these fuels (mostly maize and wheat) was imported. No new agricultural land has been brought into use for bioenergy in general.

Negative consequences abroad, due to the import of raw materials, are prevented through the sustainability criteria that are applicable for these biomass flows. For this reason, the impact on biodiversity, water resources, water quality and soil quality as a result of growing crops for the production of biofuels is immaterial in the Netherlands. The Netherlands focuses on renewable electricity and on the use of waste residues for the production of biofuels, bioliquids and biomass fuels, to avoid the use (new) agricultural land for renewable energy production.

Annex XVI Table 6

Observed cases of fraud in the chain of custody of biofuels, bioliquids and biomass fuels

<p>Please report observed cases of fraud in the chain of custody of biofuels, bioliquids and biomass fuels</p>	<p>Miap</p>	<p>No cases of fraud were observed in the reporting years 2020 & 2021.</p> <p>In the Netherlands the Emission Authority (NEa) is tasked with the supervision the Energy for Transport system and is authorized to take enforcement action. With the transposition of the renewable energy directive 2018/2001 into national law the supervision was extended to all links in the biofuel supply chain. The supervision concerns: the fuel suppliers, all the certified links in the sustainable supply chain and the certification bodies. In the audit of bunker companies by NEa some inaccuracies were found in the procedures. Furthermore in some cases inaccuracies were found in the foundation of reported energy value of biofuels with a non- fixed default value, like bionafta and some marine fuels. In all cases enforcement actions were taken by NEa. Since 2021 NEa regulation requires Carbon-14 analysis for Hydrotreated Vegetable Oil to validate the accuracy of HVO determination. This prevents that similar products like fossil gas to liquid fuels are brought in the market labeled as HVO.</p>
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Miap = mandatory if applicable

Annex XVI Table 7

Share of biodegradable waste in waste-to-energy plants used for producing energy

		Year	
		X-3	X-2
Are waste-to-energy plants operated? ⁽¹⁾	Miap	Yes	Yes
If yes			
Share of biodegradable waste used (%)	Miap	57% ^(a)	58% ^(a)
Methodology for estimating the share	Miap	See text below ^(b)	See text below ^(b)
Steps taken to improve and verify the estimates	Miap	See text below ^(c)	See text below ^(c)

Notation: X = reporting year; Miap = mandatory if applicable Notes:

(1) Member States shall select from the following options: Yes; No.

(a) For this questionnaire the ‘share of biodegradable waste’ (in weight) is assumed to be equal to the share of biomass waste incinerated in weight. The reason to assume this is because there is no current calculation of biodegradable waste. Not all biomass is biodegradable, this is known from the methodology to determine the emissions of landfills.

(b) The methodology for calculating the share of biomass waste in weight in the total waste used in waste-to-energy plants is described in the ‘Methodology report on the calculation of emissions to air from the sectors Energy, Industry and Waste’ (ENINA 2022; <https://www.rivm.nl/publicaties/methodology-for-calculation-of-emissions-to-air-from-sectors-energy-industry-and-waste>) . This methodology is also used for the calculation of the amount of renewable energy produced in waste-to -energy plants.

(c) In ENINA 2022 (<https://www.rivm.nl/publicaties/methodology-for-calculation-of-emissions-to-air-from-sectors-energy-industry-and-waste>) the process of controlling the quality of calculations is described. The share of biomass waste is calculated on a yearly basis by the independent organization 'Rijkswaterstaat Directorate for the Environment'. For this calculation several yearly reports are consulted. The calculation is based on several steps;

The basis for the calculations is the data generated from research that has been done for years on the composition of household waste in the Netherlands. With use of the collected data from this research the energy, carbon- content and related share of biomass can be determined for the waste that is processed in waste-to-energy plants.

Annex XVI Table 8

Electricity and heat generation from renewable energy in buildings, including, where available, disaggregated data on energy produced, consumed and injected into the grid ⁽¹⁾

Reporting element	Specification	Unit	Year	
			X-3	X-2
Total final energy consumption from renewables in buildings for heating purposes	Miav	ktoe	904	999
Solar thermal systems	Miav	ktoe	29	29
Biomass ⁽²⁾	Miav	ktoe	416	418
Heat pumps ^(a)	Miav	ktoe	301	383
Geothermal systems ^(b)	Miav	ktoe	158	169
Other decentralised renewable sources	Miav	ktoe	0	0
Total renewable heat consumed in buildings ^(c)	Miav	ktoe	904	999
Solar thermal systems	Miav	ktoe	29	29
Biomass ⁽²⁾	Miav	ktoe	416	418
Heat pumps ^(a)	Miav	ktoe	301	383
Geothermal systems ^(b)	Miav	ktoe	158	169
Other decentralised renewable sources	Miav	ktoe	0	0
Total renewable heat produced and fed into the grid (district heating)	Miav	ktoe	0	0
Solar thermal systems	Miav	ktoe	0	0
Biomass ⁽²⁾	Miav	ktoe	0	0
Heat pumps	Miav	ktoe	0	0
Geothermal systems	Miav	ktoe	0	0
Other decentralised renewable sources	Miav	ktoe	0	0
Total renewable electricity production in buildings	Miav	ktoe	0	0
Solar PV systems	Miav	ktoe	629	777
Biomass ⁽²⁾	Miav	ktoe	0	0
Geothermal systems	Miav	ktoe	0	0
Other decentralised renewable sources	Miav	ktoe	0	0
Total renewable electricity consumption in buildings	Miav	ktoe	473	576
Solar PV systems	Miav	ktoe	473	576
Biomass ⁽²⁾	Miav	ktoe	0	0
Geothermal systems	Miav	ktoe	0	0

Other decentralised renewable sources	Miav	ktoe	0	0
Total renewable electricity fed into grid	Miav	ktoe	446	559
Solar PV systems	Miav	ktoe	446	559
Biomass ⁽²⁾	Miav	ktoe	0	0
Geothermal systems	Miav	ktoe	0	0
Other decentralised renewable sources	Miav	ktoe	0	0

Notation: X = reporting year; Miav = mandatory if available.

Notes:

(1) Building' means a roofed construction having walls, for which energy is used to condition the indoor climate (Directive 2010/31/EU, Article 2(1)) whereas Annex I of that Directive defines, for the purpose of the calculation of energy performance of buildings, the following classification of categories: (a) single-family houses of different types; (b) apartment blocks; (c) offices; (d) educational buildings; (e) hospitals; (f) hotels and restaurants; (g) sports facilities; (h) wholesale and retail trade services buildings; (i) other types of energy-consuming buildings (Directive 2010/31/EU, point 5 of Annex I).

(2) Biomass produced in accordance with the sustainability criteria for biofuels, bioliquids and biomass fuels, laid down in Article 29 of Directive (EU) 2018/2001.

(a) heat from air

(b) heat from ground

(c) buildings only include households and service sector

Annex XVI Table 9**The amount of solid biomass used for energy production**

Reporting element	Specification	Unit	Year	
			X-3	X-2
1) Energy sector (total) ⁽¹⁾	M	TJ NCV		
a) Electricity ⁽¹⁾	M	TJ NCV		
b) Combined heat and power ⁽¹⁾	M	TJ NCV		
c) Heat ⁽¹⁾	M	TJ NCV		
2) Transformation sector (except for energy) ⁽¹⁾	M	TJ NCV		
3) Industry sector internal (consumed and autoproduced electricity, CHP and heat) ⁽¹⁾	M	TJ NCV		
4) Direct final consumption residential ⁽¹⁾	M	TJ NCV		
5) Other ^{(1) (2)}	M	TJ NCV		

Notation: X = reporting year; M = mandatory Notes:

(1) Amounts of biomass used in the related sector, covering also transformation losses.

(2) This includes among others, agriculture, forestry and commerce, trade and services.

Annex XVII Table 1

Progress in each sector and reasons why energy consumption remained stable or was growing in final energy consumption sectors

Sector	Specification	Reasons for growth/stable final energy consumption in year X-3 ⁽³⁾	Reasons for growth/stable final energy consumption in year X-2
Industry	M	Choose (an) item(s) ⁽¹⁾	Economic growth
Transport	M	Choose (an) item(s) ⁽¹⁾	Economic growth; Increase of transport of goods; Increase of transport of passengers
Households	M	Choose (an) item(s) ⁽¹⁾	Worsening of winter climatic conditions
Services	M	Choose (an) item(s) ⁽¹⁾	Worsening of winter climatic conditions
Agriculture	M	Choose (an) item(s) ⁽¹⁾	Economic growth; Worsening of winter climatic conditions
Other ⁽²⁾	Miap		

Notation: X = reporting year; M = mandatory; Miap = mandatory if applicable.

Notes:

(1) Member States to choose from the following reasons (more than one reason can be selected, additional reasons can be specified under 'other'): Economic growth; Decline of fuel prices; Increase of value added; Increase of employment; Increase of transport of goods; Increase of transport of passengers; Increase of population and/or households; Increase of disposable income of households; Worsening of winter climatic conditions; Worsening of summer climatic conditions; Exceptional event; Change in the methodology of measurement or calculation of energy consumptions; other.

(2) Additional sectors may be added and specified under 'other'.

(3) X-3 shall not apply for the first progress reports in 2023.

Annex XVII Table 2

Total building floor area of the buildings with a total useful floor area over 250 m² owned and occupied by the Member States' central government that, on 1 January in year X-2 and X-1, which did not meet the energy performance requirements referred to in Article 5(1) of Directive 2012/27/EU

Reporting element	Specification	Unit	Indicators 1 of January Year X-2	Indicators 1 of January Year X-1	Additional information
Total building floor area of the buildings with a total useful floor area over 250 m ² owned and occupied by the Member States' central government	V	m ²	NA	8500000	Encompasses both buildings owned and rented by the Dutch government (including Ministry of Defense).
Total building floor area of the buildings which did <u>not</u> meet the energy performance requirements	M	m ²	NA	NA	25.000.000 m ² floor area of ALL office buildings (including buildings that are NOT owned or rented by the central government) do not yet comply with the energy performance requirement for offices to have an energy label C which will be enforced from 2023. The number is indicative since it is difficult to select for only offices that have to comply with the requirement. This amounts to approximately 50% of the total number of buildings (not surface area). It is not known yet which part of the offices are owned and or occupied by the Dutch Government. This number will follow.

Notation: X = reporting year; M = mandatory; V = voluntary.

Annex XVII Table 3

Number of energy audits carried out in in year X-3 and X-2. In addition, the total estimated number of large companies in their territory to which Article 8(4) of Directive 2012/27/EU is applicable and the number of energy audits carried out in those enterprises in the year X-3 and X-2

Reporting element	Specification	Unit	Year	
			X-3 ⁽²⁾	X-2
Total number of energy audits carried out	M	number		1253
Number of large companies ⁽¹⁾ to which Article 8(4) of Directive 2012/27/EU applies	M	number		3000
Number of energy audits carried out in large companies to which Article 8(4) of Directive 2012/27/EU is applicable	M	number		1229

Notation: X = reporting year; M = mandatory. Notes:

(1) The definition for the enterprises in scope of Article 8(4) of Directive 2012/27/EU follows the Commission’s definition for small and medium-sized enterprises (SMEs), as included in Commission Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

(2) X-3 shall not apply for the first progress reports in 2023.

Explanation of the figures:

- The deadline for submitting the audit reports in the Netherlands was December 31, 2020. However, due to circumstances due to COVID 19, many companies were unable to perform an energy audit. As a result, a considerable number of companies have submitted the energy audit notification in 2021. That is why we also mention the figures for 2021.
- The Netherlands only carries out the energy audit for non-SME companies. All companies that have submitted therefore fall under Article 8 of the EED Directive. SME companies fall under the Dutch energy-saving obligation.
- On the first line the number of submitted audits specified in the last line the number of approved energy audits
- It is estimated that a total of 3000 companies within the Netherlands fall under Article 8.
- The stated numbers include companies that comply with the energy audit EED via an ISO certification or a quality mark.

Annex XVII Table 4

Applied national primary energy factor for electricity and a justification, if this is different from the default coefficient referred to in footnote (3) of Annex IV to Directive 2012/27/EU

National primary energy factor for electricity (number)	M	
Justification, if factor is different from default coefficient referred to in footnote (3) of Annex IV to Directive 2012/27/EU	M	

M = mandatory

Annex XVII Table 5

Number and floor area of new and renovated nearly zero-energy buildings (1) in year X-2 and X-1, as provided in Article 9 of Directive 2010/31/EU, where necessary based on statistical sampling

Reporting element	Specification	Number		Total floor area (m ²)	
		1 January of X-2	1 January of X-1	1 January of X-2	1 January of X-1
Residential sector: Total	M _{iav}	NA	NA	NA	NA
Residential sector: New NZEBs	V	NA	NA	NA	NA
Residential sector: Renovation	V	NA	NA	NA	NA
Non-residential (private): Total	M _{iav}	NA	NA	NA	NA
Non-residential (private): New NZEBs	V	NA	NA	NA	NA
Non-residential (private): Renovation	V	NA	NA	NA	NA
Non-residential (public ⁽²⁾): Total	M _{iav}	NA	NA	NA	NA
Non-residential (public): New NZEBs	V	NA	NA	NA	NA
Non-residential (public): Renovation	V	NA	NA	NA	NA
Definition of nearly zero-energy buildings ⁽³⁾	V	NA	NA	NA	NA

Notation: X = reporting year; M_{iav} = mandatory if available; V = voluntary. Notes:

(1) The definition of nearly zero-energy buildings is according to official national NZEB definitions transposing Article 9 of Directive 2010/31/EU, following the framework definition in Article 2 of Directive 2010/31/EU: “Nearly zero-energy building means a building that has a very high energy performance, as determined in accordance with Annex I. The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby”.

(2) The COMMISSION RECOMMENDATION (EU) 2019/786 on building renovation, clarifies that Article 2a(1)(e) of Directive 2010/31/EU concerns all public buildings (and not just public bodies buildings’ that are owned and occupied by central government). Policies and actions under Article 2a(1)(e) of Directive 2010/31/EU should include, for example, buildings that are occupied (e.g. leased or rented) by local or regional authorities and buildings that are owned by central government and regional or local authorities, but not necessarily occupied by them.

(3) Member States may provide a reference to or a short description of their national NZEB definitions.

Annex XVII Table 6

Internet link to the website where the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU can be accessible

Internet link to the website of the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU	M	https://www.rvo.nl/onderwerpen/technieken-beheeren-innovatie-gebouwen/epc
Further details or comments on data	V	

M = mandatory; V = voluntary

Annex XVIII Table 1

Information on progress towards national indicative objectives to reduce the number of households in energy poverty

Name of national target/ objective	Description	Target year	Progress towards target/ objective ⁽¹⁾	Progress Indicator(s) (if applicable)						Details concerning the monitoring strategy	Reference to assessments and underpinning technical reports
				Name of indicator to monitor progress	Base Year	Value in base year	Unit	X-3	X-2		
Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap
<i>National target / objective 1</i>	There are no national targets. We have focused on setting up a monitoring system.									Indicators used are based on affordability: Low Income - High Energy bill (LIHE) and Low Income - Low quality housing (LILEK)	
<i>National target / objective 2</i>											
<i>National target / objective 3</i>											
<i>Add further rows, as needed</i>											

Notation: X = reporting year; Miap = mandatory if applicable Notes:

(1) Member States shall explain the progress towards national indicative objective / target to reduce the number of households in energy poverty. Where relevant, Member States shall include information on general trends or effects from other programmes/policies, which might have an effect on the progress.

Annex XIX Table 1

Quantitative information on the number of households in energy poverty

Number of households in energy poverty	Unit ⁽¹⁾	Reference year ⁽²⁾	Year of publication	Methodology to determine the number of households in energy poverty	Criteria and data (including source) underpinning the assessment of the number of households in energy poverty
M _{iap}	Miap	Miap	Miap	Miap	Miap
6.4	%	2020	2023	Percentage of households with indicators LIHE(Low income households with a high energy bill) or LILEK(Low income households living in an energy inefficient house). LIHE or LILEK implies that households in energy poverty are unique and have only been counted once even if they appear in both categories.	Energy Poverty Monitor by Central Bureau of Statistics (2023)

Notes:

Miap = mandatory if applicable

(1) Member States shall select from the following options (additional units may be added and specified under ‘other’): absolute numbers; %; other.

(2) Member States may choose to report a reference period (e.g. average of three years).

Annex XIX Table 2

Reporting on indicators in relation to energy poverty

Reporting element	Specification	Unit	X-3	X-2
Share of population at risk of poverty not able to keep home adequately warm	V	Population below 60% of median equivalised income (%)		
Share of total population not able to keep home adequately warm	V	Population (%)		
Share of population at risk of poverty with arrears on utility bills	V	Population below 60% of median equivalised income (%)		
Share of total population with arrears on utility bills	V	Population (%)		
Share of population at risk of poverty with leak, damp or rot in dwelling ⁽¹⁾	V	Population below 60% of median equivalised income (%)		
Share of total population with leak, damp, rot in dwelling ⁽¹⁾	V	Population (%)		

Reporting element	Specification	Unit	X-3 1st half	X-3 2nd half	X-2 1st half	X-2 2nd half
Household electricity prices	V	ct/kWh				
Household gas prices	V	ct/kWh				
Reporting element	Specification	Unit	X-3 1st half	X-3 2nd half	X-2 1st half	X-2 2nd half
Household electricity prices, lowest consumption band	V	ct/kWh				
Household gas prices, lowest consumption band	V	ct/kWh				

V = voluntary Note:

(1) These data are not part of yearly Eurostat surveys but may be available on national level.

Annex XIX Table 3
Reporting on national indicators in relation to energy poverty

Name of indicator ⁽¹⁾	Data source	Unit	Year		Data collection period ⁽²⁾	Short description
			X-3	X-2		
V	V	V	V	V	V	V

Notation: X = reporting year; V = voluntary Notes:

(1)Member States may report national indicators that complement the indicators in Table 2. These may include income of households, the affordability of energy services, housing situations and equipment and complementary/indirect indicators useful to deepen the analysis of potential drivers of energy poverty. Indicators may be drawn from the Building Stock Observatory database.

(2)Member States may report the data collection period and whether data is collected regularly.

Annex XIX Table 4
Information on national definition of energy poverty

National definition of energy poverty	Year of publication	Year of last amendment	General comments ⁽¹⁾
V	V	V	V
Energy poor households are households with low income in combination with high energy bills or energy inefficient dwellings.	2023	2023	Working definition

Notes:

V = voluntary

(1) Member States may include information on the status, e.g., whether it is a legal definition or a working definition (which has no legal status but creates a common knowledge on the characteristics of energy poverty and supports setting of targets, implementing measures and monitoring trends) and information on supporting indicators.

Annex XX Table 1

Impact of the implementation of the national energy and climate plan on jobs, workers and regions

Expected impacts on jobs, labour markets and skills ⁽¹⁾	V	<p>The current labor shortage is high, and the expectation is that this shortage will remain over the coming years. The energy transition and climate plan increase the demand for specific jobs, especially in the technical sectors. Looking at the Dutch climate agreement, we see that 4 out of 5 jobs needed for the transition has a technical nature.</p> <p>Demographic elements play an important role in the labor shortage, not only for technical jobs but also for the health care and educational sectors. The Dutch population is aging, and the working population is shrinking. Some technical sectors, such as the energy and minerals and industry have already aged considerably. For these sectors an outflow is expected in the near future. At the same time, the demand for technically skilled people will increase to reach our climate goals. Also, within this demand there is a difference in type of jobs. For example, in total there are 45 different technical jobs needed to facilitate the transition in the built environment.</p> <p>We have indicated that the following jobs and skills are needed for the transition. These jobs already experience a shortage (as off 2021 it is calculated that for each of the below positions at least 1000 vacancies are open), which will only increase without action:</p> <ul style="list-style-type: none"> -Mechanics for industrial machines and installations -Production planners -Work planners and calculators for construction and installation technology -Electricians and mechanics for electrical installations -Lumbers -Carpenters -Designers and analysts for ICT-systems -Electrotechnicians -Mechanical engineers -Advisors for automation -Mechanics for air treatment and refrigeration technology -Draftsmen and structural engineers -Construction and installation contractors -Network specialists -Welders and metal cutters -Managers for construction and installation -Civil engineers -Work planners and calculators for mechanical engineering -Mechanical operators for the food industry -Work planners and calculators for ground, road and hydraulic engineering <p>Mid 2022 there were 86.250 open positions within the technical sector and this is expected to increase to 210.900 within 2026. As these skills are an essential precondition for reaching our climate goals, the Ministry of Economic Affairs and Climate is currently working on an action plan to retain and increase the number of people working in this sector. Together with support from different stakeholders, we hope to make people more aware of the value of technical education and jobs and make it more attractive to work in this sector.</p>
Expected distributional impacts amongst population ⁽²⁾	V	<p>Of course there are also sectors where we expect that people will lose their jobs. For example with regards to people currently working at coal plants. Within the Dutch climate strategy it is stated that energy production with coal is prohibited from 2030 onwards. This has as consequence that people working at those coal plants need to find another position. Due to the aforementioned aging and the general shortage on the labor market we do not foresee big challenges for those people to find a new position. However, it is important to support them in the transition to new jobs. Therefore the action plan for 'green jobs' also focuses on education possibilities to ensure people can transition from emitting jobs to net zero jobs.</p>
Expected impact for most affected regions ⁽³⁾	V	<p>The following regions are expected to experience the most challenges to transition to a net zero economy: Groningen-Emmen, IJmond, Groot-Rijnmond, West-Noord-Brabant, Zeeuws-Vlaanderen and Zuid-Limburg. This is due to the economic activities that need become more sustainable in those regions which also has an impact on the people working in those regions.</p>
Expected impact on quality of life, well-being ⁽⁴⁾	V	<p>The action plan that the Ministry of Economic Affairs is working on and a plan from the engineering, construction and energy industry associations both emphasize the importance of improving secondary benefits for technical jobs. Especially within the technical sector, the conditions are relatively traditional with mostly full-time positions, early check-in times and physically heavy activities. By making these conditions more flexible, it is expected that working in this area will become more attractive (especially for currently underrepresented people in this sector) and have a positive impact on quality of life and well-being.</p>
Expected impacts on costs ⁽⁵⁾	V	<p>The government invests in the development of the relevant skills, for example through subsidies for additional education (so called STAP budget), for a national ecosystem of lifelong learning and upscaling of bottom-up initiatives that support people in transitioning to a technical job. Also for employers an increase in costs is expected to educate and retain people in climate-related jobs. The engineering, construction and energy industry associations have pledged to invest 50 miljoen a year for the coming 10 years.</p>
Inclusiveness and participatory processes ⁽⁶⁾	V	<p>In the technical positions needed for the transition, diversity is often low. In 2019/2020 the percentage of woman working in the technical sectors in the Netherlands was 14% (whereas this is 47% on the overall labor market). Although a smaller delta, we also see a decrease in people with a migration background that follow technical studies like engineering (13% compared to 21% for people without a migration background). This means that there might be untapped potential to increase the number of people working in these sectors. The Ministry of Economic Affairs and Climate is currently working on an action plan for green jobs. This plan also pays attention to the diversity of the workforce by focusing on the inflow and retention of women in technical education and sectors.</p>

Notes:

V = voluntary

- (1) Member States may provide quantitative elements on the expected evolution of labour market as a result of policies (e.g. sectors that will grow, others that will shrink, and by how much) and describe measures adopted/to be adopted to accompany this transition, including as regards education and training policies as well as social protection.
- (2) Member States may describe expected impacts of policies on overall population as well as specific groups, especially the most vulnerable, reflecting as well whether some groups will benefit more than others, and describe measures aimed to ensure fairness and equal burden sharing in that respect.
- (3) Member States may describe expected impacts of policies on regions that are to be most affected by the transition, especially coal, peat or oil shale regions or carbon-intensive regions, and mitigating measures to address socio-economic consequences in such areas. Member States are encouraged to provide quantitative indicators such as jobs, economic output and local tax revenue.
- (4) Member States may describe expected impacts on reducing environmental hazards, degradation and pollution, improving the access to safer products, intact ecosystems and their services (food, clean air, water, climate stability etc.), secure livelihoods and benefit health and well-being, including healthier working condition, e.g., limiting emission and improving air quality standards of workplaces.
- (5) Member States may describe the expected impacts on costs introduced as a result of climate, energy and environmental policies for both business and consumers (e.g., energy savings lower energy cost; more durable products lower costs for replacement; lower costs for environmental clean-up and public health).
- (6) Member States may describe the expected impacts of measures to ensure inclusiveness of climate, energy and environmental policies, in particular as regards low-income households and communities directly affected by the transition, for instance in most affected regions, through e.g. the implementation of green infrastructure and public services, participatory processes, etc.

Annex XX Table 2

Impact of the implementation of the national energy and climate plan on the promotion of human rights and gender equality and addressing inequalities in energy poverty

Promotion of human rights ⁽¹⁾	V	
Promotion of gender equality ⁽²⁾	V	
Addressing inequalities in energy poverty	V	

Notes:

V = voluntary

(1) Climate justice and just transition also address the sharing of benefits and burdens of climate change from a human rights perspective. Climate change threatens the effective enjoyment of a range of human rights including those to life, water and sanitation, food, health, housing, self-determination, culture and development. Member States may describe how the implementation of their integrated national energy and climate plans contributes to their obligation to prevent the foreseeable adverse effects of climate change and ensure that those affected by it, particularly those in vulnerable situations, have access to effective remedies and means of adaptation to enjoy lives of human dignity.

(2) Member States may describe how their integrated national energy and climate plans are implementing the just transition considering the different impacts on opportunities for men, women and gender diverse people in transitioning regions, what obstacles exist, and what plans they have planned and implemented to move forward.

	A	B	C	D	E	F
1	Annex XXI Table 1					
2	Reporting on information on the implementation of regional cooperation					
3						
4		Name of regional cooperation initiative with other Member States in implementing the objectives and policies	Relevant Union dimension(s) affected ⁽¹⁾	Implementation period	Description	Member States involved
5		Miap	Miap	Miap	Miap	Miap
6		<i>Pentalateral Energy Forum</i>	Internal Energy Market, Electricity Interconnectivity, Energy Security, Energy transmission infrastructure, Decarbonisation – Renewable energy	In the context of the NECP: ongoing since 2020 (Penta cooperation started in 2005)	In close cooperation with the European Commission (on invitation), the Pentalateral Energy Forum has been working since 2005 to enhance the cooperation between all relevant parties in order to create a regional electricity market as an intermediate step towards one common European electricity market and is thereby taking the lead in Europe. The cooperation is led by the Ministers responsible for energy policy, who meet on a regular basis. The follow-up of the activities is ensured by the Penta Coordinators' and the Penta NECP Committee under the direction of the respective Directors General of the Pentalateral countries. The work programme is carried out in Support Groups, composed in principle of representatives of ministries, Transmission System Operators (TSOs), regulatory authorities (NRAs), the European Commission and occasionally market parties.	The Pentalateral Energy Forum consist of 7 countries: Austria, Belgium, Germany, France, Luxembourg, the Netherlands and Switzerland as permanent observer.
7						

	A	B	C	D	E	F
8						
9		North Seas Energy Cooperation (NSEC)	<ul style="list-style-type: none"> •Decarbonisation - Renewable energy; •Energy security •Internal energy market - Electricity interconnectivity •Internal energy market - Energy transmission infrastructure; •Internal energy market - Market integration 	Ongoing (since 2020)	The North Seas Energy Cooperation (NSEC) is a voluntary, bottom up, market-oriented, regional cooperation initiative established in 2016, which seeks to create synergies and to avoid incompatibilities between national policies and to share knowledge on international best practices and foster joint strategies where possible and beneficial. The aim is to coordinate and facilitate further cost-effective deployment of offshore renewable energy, in particular wind, ensuring a sustainable, secure and affordable energy supply in the North Seas countries through increased and better coordinated offshore wind deployment as well as potential joint and hybrid projects or cluster projects (so-called offshore hubs). The NSEC focuses on a step -by step approach with the perspective of further integration and increased efficiency of wholesale electricity markets in the longer term, while contributing to a reduction of greenhouse gas emissions, in average wholesale price spreads and enhancing security supply in the region	The North Seas Energy Cooperation consists of 9 countries with participation from the European Commission: Belgium, the Netherlands, Luxembourg, France, Germany, Ireland, Norway, Sweden and Denmark. Since the signature of an MoU with the UK in December 2022, collaboration on specific topics in the field of offshore renewable energy is possible with the UK.
10	Miap = mandatory if applicable					
11	(1) Member States shall select one or more of following: Decarbonisation - GHG emissions and removals; Decarbonisation - Renewable energy; Energy efficiency; Energy security; Internal energy market - Electricity interconnectivity; Internal energy market - Energy transmission infrastructure; Internal energy market - Market integration; Research, innovation and competitiveness; Phase out of energy subsidies					
12						

	G	H
1		
2		
3		
4	Expected contribution to implementing the objectives and policies	Progress towards regional cooperation
5	Miap	Miap
6	<p>Cooperation within the Pentalateral energy forum has contributed to key objectives of the Energy Union, most notably to the objectives energy security, an integrated internal energy market and decarbonising the economy.</p> <p>Energy security</p> <p>The Pentalateral cooperation has contributed to energy security through its work on implementation of the risk preparedness regulation. Penta countries adopted an MOU on regional cooperation in the case of an electricity crisis, agreed on a communication protocol, included a shared Penta paragraph in the national risk preparedness plans, and take part in joint crisis exercises, the most recent being in Paris in 2022.</p> <p>Furthermore, Penta contributed to the development of methodology for resource adequacy assessments through its study on the topic, that expanded amongst others on the treatment of demand side response in resource adequacy assessments. This can be taken up in EU wide resource adequacy assessments.</p> <p>In addition, Penta strengthened coordination in response to the recent gas crisis. Penta adopted a political statement on gas storages and contributed through regular exchanges amongst ministers. Penta experts also exchanged regularly on the implementation of electricity demand reduction measures agreed in September 2022. Thus, contributing to both development of EU policies, and implementation thereof.</p>	<p>In the joint NECP paragraph that Penta countries adopted in 2020, they detailed their ambition to cooperate on decarbonization of the electricity sector, the internal electricity market, security of supply, and financing instruments for the energy transition.</p> <p>On decarbonization of the electricity sector, Penta countries exchanged their vision for a decarbonized electricity system, and have taken this further in announcing the ambition to develop a joint vision on this subject.</p> <p>Furthermore, Penta countries held exchange of views on integration of electro-mobility options, and on carbon pricing and their cross border impact on electricity prices.</p> <p>On Market integration, Penta countries contributed to the implementation of the clean energy package, through amongst others the study on flexibility. In line with the ambition mentioned in the NECP paragraph, Penta launched a support group on hydrogen, which developed a joint position, and is contributing amongst others to market monitoring, and certification.</p> <p>On Security of Supply, Penta countries have contributed to the development of methodology for resource adequacy assessments, and are working actively together on implementation of the risk preparedness regulation. Notable milestones in this field include the development of a joint paragraph in national risk preparedness plans, joint exercises, a communication protocol, and a Penta MOU on cooperation in the case of a cross border electricity crisis.</p>
7	<p>Integrated internal energy market</p> <p>Penta Ministers have adopted a common political declaration on hydrogen, which sets out the further work of the Penta Forum on hydrogen. The newly created support group on hydrogen within Penta is contributing actively to the development of a EU hydrogen market. For example, through adopting a joint position on the regulatory framework for hydrogen, work on certification, and monitoring the development of the internal hydrogen market, and the enhancement of hydrogen (import) infrastructure and interconnections.</p> <p>Finally, Penta is promoting the development of flexibility, most recently through a joint study that provided additional insight into the current and future state of flexibility in the Penta region, and developing policy suggestions that can be further taken up. Since flexibility is a fundamental prerequisite for decarbonisation in the EU, this work contributes to the integrated internal energy market, and to decarbonising the economy.</p>	

	G	H
8	<p><u>Decarbonising the economy</u></p> <p>Penta has taken up the challenge to work towards a common Penta vision on a decarbonised electricity system. To this end, a comparison of national scenarios on decarbonisation is close to being finalised. This also contains recommendations by the researchers for building blocks for a common vision. As a first step towards building a common vision these building blocks were discussed amongst Penta and NSEC ministers with the EU commissioner in attendance.</p> <p>Furthermore, much of the abovementioned work contributes either directly or indirectly through the decarbonisation of the economy.</p>	
9	<p>NSEC energy ministers agreed in their Joint Statement of 6.07.2020 in Berlin on the indispensable role offshore wind energy will play in reaching national and EU's energy and climate targets and highlighted the importance of EU electricity market arrangements.</p> <p>NSEC countries agreed on 12.09.2022 in Dublin on a joint ambition of 260 GW of offshore wind by 2050, accounting for 85% of the EU-wide target for offshore wind by 2050.</p> <p>NSEC acted as facilitating body for the NSOG priority corridor and agreed on 19.01.2023 for the North Sea basin only under the TEN-E Regulation on the following goals for offshore wind: 60,3 GW by 2030, 134,9-158 GW by 2040, 171,6-218 GW by 2050.</p> <p>NSEC provided input for the EU Offshore Renewable Energy Strategy. At the ministerial meeting on 6.07.2020 NSEC energy ministers recognised the importance of continued regional cooperation also in the interest of Europe, and on 2.12.2021 Ministers agreed on a new work programme and political declaration.</p>	<p>Non-binding agreement on offshore renewable energy goals for 2030, 2040 and 2050 for Northern Seas' region.</p> <p>Political Declaration of 2.12.2021, updating the structure and work programme of NSEC.</p> <p>Memorandum of Understanding between NSEC and the UK of 18.12.2022.</p> <p>Analysis of visions of the energy system towards 2050 for the Northern Seas region.</p> <p>Spatial study North Seas 2030 – offshore wind development, to better understand combined potential spatial conflicts and opportunities.</p> <p>Examination of options for co-existence of offshore renewables with other maritime uses and methodologies for assessing cumulative impacts.</p> <p>Overview of national approaches towards marine uses.</p> <p>(Ongoing) development of a common environmental assessment framework.</p> <p>Joint dashboard for coordinating national offshore wind tendering schedules and best-practice exchange on national support scheme designs.</p> <p>Contribution to EU discussions on cost-benefit analysis and cross-border cost allocation in hybrid offshore projects as well as on EU financing instruments such as CEF and REFM discussions.</p> <p>Facilitation of the DK energy island, BE energy island, North Sea Wind Power Hub</p> <p>Limited progress on converging of standards and certification .</p> <p>Start of an exchange round of first experiences of hydrogen projects related to offshore.</p>
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12		

Annex XXII Table 1
Reporting on implementation of recommendations

Recommendation	Category of recommendation ⁽¹⁾	Policies and measures adopted, or intended to be adopted and implemented, to address the recommendation	Detailed timetable for implementation	Reasons for not addressing the recommendation or a substantial part thereof
Miap	Miap	Miap	Miap	Miap
<i>Recommendation 1</i>				
<i>Recommendation 2</i>				
<i>Add further rows, as needed</i>				

Miap = mandatory if applicable Notes:

(1) Member State shall select from a list of categories provided in the electronic version of the tabular format

Annex XXIII Table 1

Progress in establishing multilevel climate and energy dialogue referred to in Article 11 of Regulation (EU) 2018/1999 ⁽¹⁾

<p>Details on multilevel climate and energy dialogue</p>	<p>M</p>	<p>Climate Agreement – National Climate Platform The Climate Agreement (2019) is a package of measures and agreements between approximately 150 parties (companies, civil society organizations and (local) governments) to reduce greenhouse gas emissions by 2030. The Climate Agreement Progress Meeting (VGO) discussed the progress of the Climate Agreement and also fulfilled the (social) platform and signal function. As of fall 2022, the VGO has been replaced by the National Climate Platform (NKP). The NKP is tasked with setting up the conversation with social parties on climate policy, such as with companies, NGOs and citizens (including young people), among others. The NKP provides solicited and unsolicited advice based on reflections from social parties.</p> <p>Regional Energy Strategies Citizen participation is intensified in the Regional Energy Strategies (RESs) as wind and solar projects become more visible. With the war in Ukraine and high energy prices, residents seem increasingly positive about climate action, yet well-organized opposition to solar and wind projects sustain. In several places, citizen assemblies have been or are being organized, such as in the regions of North Brabant and Gelderland. Furthermore, all energy regions strive for fifty percent local ownership in 2030. Many - but not all - regions are working on policy measures to supporting local ownership, but it seems that more knowledge is needed among local councils to facilitate between developers and residents. To increase knowledge and to monitor public participation in the RES in general, several studies (some quantitative, some qualitative) are ongoing and planned in 2023, ranging from procedural justice and distributive justice, to process, project and financial participation</p> <p>Communication: Broad Public Approach The broad public approach, that started in 2019, has entered a new phase. The amount of Dutch people concerned about the climate is large. This means that in approach and message a different form and tone are necessary and possible. Partly for this reason, the further development of the national umbrella campaign began in 2022 and will start in the first half of 2023. This campaign will focus more on the urgency of climate policy and the collective nature of the task and less on individual actions. These latter will be addressed through campaigns by line ministries. National Climate Week was also launched in 2021, in which the national government wants to stimulate the sustainable movement from the bottom up by showing as many examples as possible of sustainable behavior, both from individuals and from companies and governments; this also puts more emphasis on the collectivity of the task. The network approach - which initially focused primarily on working with so called climate partners to facilitate sustainable choice as default - now focuses more on connecting all parties that play a role in the transition: co-governments and civil society organizations. The umbrella campaign, National Climate Week and Network Approach are all parts of the overall climate communication and reinforce each other.</p>
<p>Progress in establishing the multilevel climate and energy dialogue</p>	<p>Miap</p>	

Notes:

M = mandatory; Miap = mandatory if applicable

(1) Member States to provide details of multilevel climate and energy dialogue pursuant to national rules, in which local authorities, civil society organisations, business community, investors and other relevant stakeholders and the general public engaging and discussing the different scenarios envisaged for energy and climate policies, including for the long term