CPB Netherlands Bureau for
Economic Policy Analysis

Evaluation draft Climate Agreement and Cabinet variants

CPB Communication

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1 Introduction

In a letter dated 21 December 2018, the Minister of Economic Affairs and Climate Policy and the chairman of the Dutch Climate Council (Klimaatberaad) asked CPB to evaluate the measures contained in the draft Climate Agreement plus some additional variants proposed by the Rutte III Cabinet. As requested, the focus of this report is on the budgetary effects, the financial burden and income effects, as well as on burden sharing.[1]

CPB presents the effects of the draft Climate Agreement and the additional variants in connection with current policy an/or adopted policy still to be implemented; certain budgetary, cost and income effects are looming on the horizon, even without the draft Climate Agreement — which provides additions and adjustments, so that the desired CO_2 target can still be achieved. Furthermore, the overall climate and energy policy is in line with household, business and economic perceptions, as the total change will be felt from one year to the next; the source of the impact — whether previously anticipated policy changes or the draft Climate Agreement — is less important. Appendix B contains a description of the current policy that has been implemented from 2018 onwards, updated to December 2018.

For this evaluation, CPB has only studied the measures and variants that have been sufficiently elaborated and can be enforced. Instruments, intensity, phases and enforceability must all be clear. In addition, the report contains an assessment of the main aspects with respect to legal tenability and implementation. A description of the assessment framework can be found in Appendix A. Appendix D contains an overview of all the measures evaluated. For a number of measures, a provisional estimate is provided. An overview of those measures can be found in Appendix C.

This evaluation presents the effects of three types of government instruments: expenditure, measures that concern the financial burden, and regulation. It shows the impact for three reference years (2021, 2025 and 2030), to illustrate developments over time. Outcomes for expenditures and the financial burden are presented per sector. The financial burden is further divided into that on households, businesses and other countries. The evaluation shows both EMU-related costs (those with a relationship to the government balance) and non-EMU-related costs. The latter consist of the costs for households and businesses to comply with new standards and regulations.

In standard purchasing power analyses, measures such as those in the draft Climate Agreement are analysed on the basis of the Consumer Price Index (CPI). Such a broad approach is less suitable for major reform measures that will not have the same impact everywhere in society. This evaluation represents a more focused analysis that takes the differences in energy consumption and mobility between population groups into account, as much as possible. These groups do, however, fit in with the standard classification as normally used for CPB's purchasing power analyses. The analysis assumes all policy to be implemented at the same time and there to be no changes in people's behaviour. The income effects, therefore, have a static character. In addition to this standard static analysis of the income effects per group, a general analysis of the possible delayed-impact effects is also presented. Businesses will try to pass on the costs by increasing prices; households will adjust their behaviour in response to the higher costs and prices. This general analysis cannot focus on individual groups, but does provide certain contrasts for all groups. The income effects are presented

[1] In addition to the request for an overview of budgetary effects, financial burden and income effects, and burden sharing, the Cabinet also had a number of additional requests related almost exclusively to greenhouse gas reduction. These requests are outside the scope of this evaluation. Chapter 3 does, however, provide a brief qualitative explanation of the impact of climate and energy policy on GDP, employment and business relocation.

up to 2021 and 2030; on this point, the year 2025 was left out, as this would have provided hardly any additional information.

For projections of the size of the budgetary impact and the financial burden, CPB relied on standard accounting methods, information from government departments and, in a few cases, on PBL's national cost assessment. To determine the income effects, CPB used the MIMOSI[2] model, which was extended for this purpose.[3] Where possible and relevant, interrelationships between measures were also taken into account, not only within, but also between the various sectors. The effects presented are estimates and, thus, inherently uncertain. A confidence interval could not be applied, but that does not mean there is no uncertainty.

PBL and CPB closely cooperated on the evaluation, each in their own field of expertise. PBL used the National Energy Outlook (NEV) of 2017[4] as a reference scenario while CPB used the Coalition Agreement as updated in December 2018. This includes climate and energy policy as implemented by current and previous cabinets (RA+).[5] A large share of the measures included by PBL have already been incorporated by CPB into current policy. This does not lead to differences in the final picture of the effects,[6] but does show differences in the distribution between the baseline and reference scenarios and the draft Climate Agreement; for example, regarding the closure of coal-fired power stations (included in the RA+, but not in the NEV). The baseline scenario is described in Appendix B, as are the relevant differences between NEV and RA+.

CPB's and PBL's outcomes are largely based on the same package of measures. However, there are some differences (see Appendix C). First of all, there are the measures that PBL assessed as having an impact on CO_2 emissions, but which were not included in CPB's analysis because CPB considers them not unilaterally enforceable by the government and/or to have not been sufficiently elaborated. The introduction of the malus scheme in the Industrial sector is such an example. And there are five measures from the Agriculture and Land-use sector and one from the Built Environment sector. The potential reduction as calculated by PBL, for which CPB in this report provides no indication of budgetary, financial burden or income effects, may therefore be several megatonnes lower in total.

Second, there are measures without an independent CO_2 effect, which PBL identifies as flanking policies for achieving CO_2 reduction, but which CPB does not include in its analysis, again because of non-enforceability on the part of the government. Here, too, the associated effects on budget, costs and income are not indicated in this evaluation. The environmental uncertainties identified by PBL do not affect CPB's projections, in as far as the magnitude of the measures were included by CPB as policy tasks.

The following chapters are organised as follows. Chapter 2 discusses the main data of the evaluation of the draft Climate Agreement. Chapter 3 further elaborates on these data, broken down into expenditures, financial burden and income effects. And, finally, Chapter 4 discusses the Cabinet variants.

[2] CPB (2016), MIMOSI: micro-simulation model for taxation, social security, wage costs and purchasing power, CPB Background document (link).
[3] CPB (2019), Methodological basis of the evaluation of income effects from the draft Climate Agreement, CPB Background document (link).
[4] ECN, PBL, CBS and RvO (2017), National Energy Outlook 2017 (link).
[5] CPB, 2018, Forecast December 2018: Economic Outlook 2019, CPB Policy Brief (link).
[6] See Appendix B, for the comparison between CPB's budgetary effects ad PBL's national costs.

2 Evaluation of main data on draft Climate Agreement

This chapter explains the main consequences of current climate and energy policy and of the draft Climate Agreement, with regard to public finances and household incomes. Table 2.1 provides a general overview.

The situation with respect to the budget, financial burden and income is broadly based on the same package of measures as that used by PBL. However, there are also measures that, in PBL's assessment, are considered to have an impact on CO_2, but which have not been included in CPB's analysis because they could not be unilaterally enforced by the government and/or were insufficiently detailed.[7] Appendix C provides a detailed overview of all differences.

Effects of the policy measures from the draft Climate Agreement as well as from current energy and climate policies are felt by households and businesses alike. The draft Climate Agreement, in fact, expands on current climate and energy policy. From 2018 onwards, current policy will have consequences for public spending, the financial burden on households and businesses, as well as household income. This is why households and businesses are particularly affected by the overall package of climate and energy policy, in addition to the separate effect from the draft Climate Agreement. Therefore, this evaluation presents both the impact of the draft Climate Agreement and the overall effects of climate and energy policy after 2018.

The evaluation provides insight into the ex-ante effects (i.e. without delayed impact) on government expenditure, policy-related financial burden and income effects in the target year (2030). We emphasise that the evaluation only relates to climate and energy policy and, therefore, should not be regarded as a complete outlook on the total in expenditures, financial burden and purchasing power up to and including 2030.

Overall climate and energy policy shows a small improvement in public finances, for 2030. The budgetary scope in current climate and energy policy under ODE (Sustainable Energy Storage) and the air travel tax revenues will be nearly entirely used in the draft Climate Agreement. In addition, the draft Climate Agreement will increase public spending by 2.2 billion euros and the financial burden by 0.6 billion euros. On balance, overall climate and energy policy, including the draft Climate Agreement, will lead to an ex-ante improvement in the balance, in 2030.

The package of measures in the draft Climate Agreement will lead to an ex-ante deterioration of the balance in 2030. Expenditures, under the draft Climate Agreement, will increase by 2.2 billion euros in 2030. The largest increase is due to additional expenditure on SDE+ (Stimulation of Sustainable Energy Production). Spending related to the expanded SDE+ scheme will increase from 1 billion euros in 2021 to 1.3 billion in 2030.[8] Also, an additional 0.6 billion will be spent on subsidies on the purchase of zero-emission vehicles and on refunds of net revenues from heavy goods vehicle tax. The other spending increases relate to a variety of topics. Opposite the additional expenditures in the draft Climate Agreement is an increase in EMU-related costs of 0.6 billion euros, which results in a net deterioration of the budget. The draft Climate Agreement will

[7] Here, the government includes national, regional and local government authorities.
[8] The SDE+ focuses on businesses and non-profit institutions; 2019 was the last year of SDE+ — from 2020 onwards, SDE+ has been expanded under the name Stimulation of Sustainable Energy Transition (SDE++).

increase non-EMU-related costs by 1.0 billion euros, due to obligations, restrictions and standardisations, largely for businesses.

Table 2.1 Summarising overview of draft Climate Agreement, by 2030 (2018 price level)

	Overall climate and energy policy, including draft Climate Agreement	Effect draft Climate Agreement
Overview expenditure (billion euros)		
Total in EMU-related expenditure	4.4	2.2
Overview financial burden (billion euros)		
Total in policy-related financial burden	5.2	0.6
- Households	3.0	0.0
- Businesses	2.0	0.5
- Abroad	0.2	0.1
Non-EMU-related financial burden (billion euros)	1.6	1.0
- Households	0.3	0.3
- Businesses	1.3	0.8
Income effects (static, per income group)		
1%–20% (<115% NMW)	-1.8%	-0.3%
20%–40% (115%–184% NMW)	-1.6%	-0.5%
41%–60% (184%–268% NMW)	-1.4%	-0.5%
61%–80% (268%–390% NMW)	-1.1%	-0.4%
81%–100% (> 390% NMW)	-0.8%	-0.3%
Total for all households	-1.3%	-0.4%
Income effects (with delayed-impact effects, total)		
Total for all households	-1.5%	

Expenditure

Public expenditure on overall climate and energy policy will increase by 4.4 billion euros in 2030. Current policy, for example, includes planned spending increases under the SDE(+), the Infrastructure Fund and the Delta Fund, and the Rutte III Cabinet has earmarked certain funds for climate and energy purposes, which will increase expenditure on current policy by up to 2.2 billion. Under the draft Climate Agreement, these reserved resources will be spent on climate and energy policy, and there will be additional expenditures of 2.2 billion euros.

On balance, the increase in public expenditure related to the draft Climate Agreement will amount to 2.2 billion euros, by 2030. The Built Environment sector, on balance, will increase spending by 0.4 billion euros in 2030. This is largely due to the expansion of SDE+ for projects related to renewable heat. Spending increases in the Industrial sector largely concern expansion of SDE+ for the roll-out of CO_2-reducing technologies (0.6

billion euros). For the Agriculture and Land-use sector, spending increases and spending cuts will balance out by 2030. Spending increases in the Mobility and Transport sector will amount to 0.7 billion euros, half of which concerns a purchase subsidy on zero-emission vehicles. The Electricity sector, overall, will see an increase in spending of 0.2 billion euros in 2030. Most of this is due to a broadening of SDE+ for renewable electricity.

Financial burden

Overall climate and energy policy will increase the public financial burden by 5.2 billion euros, with 3.0 billion of which for households, 2.0 billion for businesses and 0.2 billion abroad. The increase in the financial burden on households and businesses is mainly driven by the increase in ODE to finance the SDE+. The impact for other countries relates to air travel tax.

The increase in the public financial burden that is related to the draft Climate Agreement will amount to 0.6 billion euros, by 2030. The public burden due to the draft Climate Agreement will increase by 0.5 billion euros for businesses and 0.1 billion for other countries. On balance, for households, there will be no financial burden effect. The measures taken by the Mobility and Transport sector and the Built Environment sector will determine the development of the public financial burden, for both households and businesses, and will fluctuate over time. For households, the draft Climate Agreement will reduce the financial burden from 2021 onwards, to the point where increases and reductions will roughly cancel each other out, towards 2030. For businesses, the policy-related financial burden will begin to increase after 2021 by up to 0.5 billion euros by 2025. In subsequent years, the financial burden on businesses will fluctuate around the same level.

Non-EMU-related financial burden

The non-EMU-related financial burden (via obligations, restrictions and standardisations) within overall climate and energy policy will affect businesses (1.3 billion euros) and households (0.3 billion euros) for a total of 1.6 billion euros by 2030. For businesses, 0.8 billion euros is the result of the draft Climate Agreement and 0.6 billion euros are due to policies that have already been implemented. The latter relates to the planned closure of coal-fired power plants and European CO_2 standards for trucks and delivery vans and only affects businesses. The non-EMU-related financial burden on households of 0.3 billion euros is entirely the result of the draft Climate Agreement.

The draft Climate Agreement will be contributing 1.0 billion euros to the increase in non-EMU-related financial burden by 2030. For example, the costs of new additional power grids will be passed on to households and businesses via grid tariffs. For businesses, the draft Climate Agreement also imposes additional standards on commercial and social real estate and obliges them to use renewable fuels.

Income effects

Overall climate and energy policy up to and including 2030 will lead to a cumulative negative income effect of 1.3%, on average, compared to 2018, and to an unbalancing effect on income. Lower incomes will be affected more than higher incomes, up to and including 2030. The decline for the lowest income group amounts to 1.8%, while for the highest income group this will be 0.8%, as a result of overall climate and energy policy between 2018 and 2030. This is largely due to already implemented climate and energy policy.

The package of measures in the draft Climate Agreement will lead to a negative income effect of 0.4% in 2030 (compared to 2018), with the most negative impact on lower middle incomes. The lower middle incomes (-0.5%), on average, will deteriorate by more than the highest and lowest incomes (-0.3%), as a result of the package of measures in the draft Climate Agreement. The shift in energy tax between electricity and natural gas has an unbalancing effect, while the increase in the energy tax reduction has a balancing effect. The further increase in private motor vehicle and motorcycle tax (MRB) and the introduction of innovation

subsidies on vehicle ownership and purchase are the strongest, relatively speaking, among lower middle-income earners. On average, the lowest income group suffers less from this because car ownership is lower within this group compared to the other groups. Although the lowest income group will be affected less than the lower middle-income group, there are more negative and positive outliers, partly depending on car ownership and type of car and differences in energy consumption.

On balance, delayed-impact effects lead to an additional income effect of -0.2%, raising the income effect of energy and climate policy to -1.5%. The estimated transfer effects amount to -0.6%. The underlying assumption is that businesses will pass approximately 80% of their cost increases on to their customers through higher tariffs.[9] The estimated behavioural effect of households equals +0.4%. This is mainly based on the increase in the number of electric vehicles, as projected by PBL.

3 Draft Climate Agreement

3.1 Overview of expenditures and financial burden

Expenditures

On balance, current climate and energy policy contains a net increase in spending. Towards 2030, structural spending increases are planned, among other things, under SDE(+) and the Infrastructure Fund (together, 1.7 billion euros in 2030), as well as incidental spending increases in the budget earmarked in relation to the Urgenda ruling and the Delta Fund. In addition, the Rutte III Cabinet has earmarked funds for energy and climate purposes (0.3 billion euros in 2030). The net spending increases related to current climate and energy policy will increase towards 2025 and then decrease again, roughly in line with the expected expenditure on SDE(+). Appendix B contains a specification of current climate and energy policy.

On balance, the draft Climate Agreement will lead to spending increases of 2.2 billion euros by 2030.[10] Table 3.1 shows the expenditures related to the draft Climate Agreement. On balance, spending increases in the Electricity sector will amount to 0.2 billion euros by 2030. For the Built Environment sector, this will be 0.4 billion euros. The Industrial sector will increase spending by 0.6 billion euros by 2030, whereas, in the Agriculture and Land-use sector, spending increases and spending cuts will largely balance out, by 2030. The spending increases in the Mobility and Transport sector will amount to 0.7 billion euros.

Public expenditure within the Electricity sector will amount to 0.2 billion euros by 2030. Of this amount, 0.2 billion euros will be spent on the expansion of the SDE+ scheme for renewable electricity. Funds will also be earmarked for setting up pilot projects and public-private projects in the fields of hydrogen and spatial integration.

[9] For more information on this percentage, we refer to the methodological justification for the calculated income effects in this document: CPB (2019), Methodological basis of the evaluation of income effects from the draft Climate Agreement, CPB Background document (link).
[10] The draft Climate Agreement does not include the effect of net increases in spending on municipal and provincial funds. This deviates from the currently applicable budget rules.

Table 3.1 Overview of expenditures draft Climate Agreement (billion euros, 2018 price level)

	2021	2025	2030
Electricity	0.0	0.1	0.2
Built Environment[11]	0.2	0.4	0.4
Industry	0.0	0.3	0.6
Agriculture and Land use	0.0	0.0	0.0
Mobility and Transport	0.1	0.7	0.7
Other SDE(+) means[12]	0.8	0.1	0.3
Total in EMU-related expenditure draft Climate Agreement	1.2	1.6	2.2
Total in climate and energy policy, including draft Climate Agreement	4.2	4.8	4.4

Within the Built Environment sector, the government will increase spending by 0.4 billion euros by 2030. Half of this amount will be spent on the expansion of the SDE+ scheme for renewable heat projects and on the investment subsidy for renewable energy (ISDE). The national government will also be contributing 0.1 billion euros to a financing fund for private homeowners and homeowners associations (VvEs) to implement housing sustainability measures. The set-up of this financing fund represents an increase of 4.5 billion euros in government guarantees granted, which equals the size of this fund. In addition, the government is increasing spending by 0.1 billion euros on various measures related to the neighbourhood approach.

Increases in public spending in the Industrial sector will amount to around 0.6 billion euros, by 2030. This amount will be spent on expanding the SDE+ scheme for the roll-out of CO_2-reducing techniques in industry. In addition, the government will spend around 0.1 billion euros on pilot projects to promote further sustainability in industry. This relates, in particular, to circularity, electrification and the underground storage of CO_2 (CCS).

For the Agriculture and Land-use sector, the increase in public spending and the spending cuts will more or less balance out, by 2030. The spending increases concern a large number of measures that will amount to under 0.01 billion euros. These measures include stimulating investments in precision agriculture and greenhouse horticulture through pilot projects and subsidies, more efficient use of industrial residual heat for greenhouses in greenhouse horticulture, and making a variety of financial resources available for addressing peat meadow problems.

The net public spending increases in the Mobility and Transport sector will amount to 0.7 billion euros by 2030. Approximately 0.6 billion euros concern subsidies on the purchase of zero-emission vehicles and refunds of the net revenues from heavy goods vehicle tax, from 2023 onwards. The other spending increases in this sector are distributed over a wide range of subjects, including a subsidy on the purchase of zero-emission heavy goods vehicles and delivery vans and the sharing of knowledge and experience in the use of zero-emission mobile equipment.
Finally, for each sector, a provisional estimate is provided for measures involving costs, but for which it is not yet possible to calculate the exact budgetary impact (see Appendix C for an overview of measures included in the provisional estimate). Together, these provisional estimates will amount to 0.1 billion euros by 2030.

[11] These measures include the creation of a financing fund, which will increase the volume of guarantees granted by government authorities by 4.5 billion euros.
[12] These general resources contribute to emission reductions but have not been allocated to a particular sector.

Financial burden

Table 3.2 Overview financial burden draft Climate Agreement (billion euros, 2018 price level)

	Overall climate and energy policy, including draft Climate Agreement			Impact draft Climate Agreement		
	2021	2025	2030	2021	2025	2030
Total in policy-related financial burden	3.7	4.8	5.2	0.0	0.5	0.6
- Households	2.4	2.7	3.0	0.1	0.0	0.0
- Businesses	1.2	2.0	2.0	-0.1	0.5	0.5
- Abroad	0.1	0.2	0.2	0.0	0.1	0.1
Non-EMU-related	0.2	1.1	1.6	0.1	0.5	1.0
- Households	0.0	0.1	0.3	0.0	0.1	0.3
- Businesses	0.2	1.0	1.3	0.1	0.3	0.8

Overall climate and energy policy will increase the public financial burden on households, businesses and other countries (Table 3.2). Current climate and energy policy will account for most of the increase. In 2021, the draft Climate Agreement will not lead to an increase in public financial burden, while current climate and energy policy will increase this burden by 3.7 billion euros. In 2030, the financial burden related to overall climate and energy policy will increase to 5.2 billion euros, with 0.6 billion of which as a result of the draft Climate Agreement. The increase in financial burden on households and businesses related to current energy policy is due to a number of factors: the increase in ODE to finance the SDE+, the combination of a tax-increasing shift in energy tax and a decrease in tax reductions, and the abolition of the net metering scheme. The draft Climate Agreement mainly increases the financial burden on businesses and other countries through the introduction of a heavy goods vehicle tax.

After 2021, the public financial burden due to the draft Climate Agreement will increase to 0.6 billion euros in 2030. The increase in this burden will take place particularly in later years and will predominately affect businesses. Following a reduction of 0.1 billion euros in the financial burden in 2021, the policy-related burden for businesses will increase to 0.5 billion in 2025 and 2030, as a result of the heavy goods vehicle tax. For households, the draft Climate Agreement will increase the policy-related financial burden by 0.1 billion euros, in 2021. In the ensuing years, the policy-related burden on households will decrease to a level that, overall, will balance out. For other countries, the financial burden will increase by 0.1 billion euros by the introduction of a heavy goods vehicle tax.

Table 3.3 Overview financial burden draft Climate Agreement, per sector (billion euros, 2018 price level)

	Total in policy-related financial burden			Non-EMU-related financial burden		
	2021	2025	2030	2021	2025	2030
Overall climate and energy policy, including draft Climate Agreement	3.7	4.8	5.2	0.2	1.1	1.6
Impact draft Climate Agreement	0.0	0.5	0.6	0.1	0.5	1.0
of which: -Electricity	0.0	0.0	0.0	0.1	0.3	0.8
-Built Environment	-0.1	0.0	0.0	0.0	0.0	0.0
-Industry	0.0	0.0	0.0	0.0	0.0	0.0
-Agriculture and Land use	0.0	0.0	0.0	0.0	0.0	0.0
-Mobility and Transport	0.0	0.5	0.5	0.0	0.1	0.3

Most of the increase in the policy-related financial burden comes from measures in the Mobility and Transport sector and will affect businesses. The increase in financial burden in the Mobility and Transport sector will be due to the introduction of a heavy goods vehicle tax in 2023, accompanied by reductions in motor vehicle tax for heavy goods vehicles, and the abolition of the Eurovignette, and will mainly affect businesses. Other increases in the financial burden, such as the tax increase for zero-emission vehicles,[13] will be partly offset by reductions in the financial burden due to the stimulation of zero-emission vehicles via the vehicle registration tax (BPM) and private motor vehicle and motorcycle tax (MRB).

On balance, the shift in energy tax in the Built Environment sector will balance out increases and decreases. The shift consists of increases in the financial burden due to higher tariffs on natural gas and reductions in the burden due to an increase in tax reductions and a lower tariff on electricity. Throughout the entire period under review, this shift will reduce the financial burden for households and increase it for businesses. The reduction in financial burden by 0.1 billion euros in 2021 will be the result of the incidentally expanded energy-saving investment credit (EIA) for landlords.

The draft Climate Agreement gradually increases the non-EMU-related financial burden in the Electricity and Mobility and Transport sectors, through obligations, restrictions and standardisations. The costs of additional power grids (onshore and offshore) will be incorporated in the tariffs and, thus, passed on to households and businesses, and this is also the case for the costs of removing natural gas connections. Businesses are also subject to energy performance standards for commercial and social real estate and face the obligation to use an additional 27 PJ in renewable fuels in road transport, compared to the 2030 scenario in the NEV2017.

[13] Delayed impact in provincial surtaxes has not been included.

The macroeconomic impact of overall climate and energy policy is about -0.5% of GDP and the relocation of energy-intensive industries will be limited.[1]

The impact of overall climate and energy policies on GDP will be about -0.5%. The total impact of current policy and the draft Climate Agreement includes, on the one hand, an increase in the financial burden that will reduce growth and, on the other hand, increased expenditures that will partly compensate that effect. The main increases in the financial burden concern the Sustainable Energy Storage (ODE) tax, the abolition of net metering, motor vehicle tax and heavy goods vehicle tax. These taxes, together with all the other increases in the financial burden, will lead to an increase in this burden of 5.2 billion euros, while expenditure increases by 4.4 billion euros. As a result of these adjusted decisions on consumption and production aimed at CO_2 emission reduction, businesses will make changes to their production processes and, ultimately, labour productivity will be structurally reduced.

Overall climate and energy policy involves transitional effects, but the impact on employment will be marginal, in the longer term.
Overall climate and energy policy will have a very limited effect on both labour supply and total labour demand*. The envisaged technological development aimed at cleaner production processes will not create additional labour demand, because this is partly also at the expense of spending on other, alternative technological developments. Despite the fact that there will be little or no decrease in employment in the longer term, the labour market will be under stress, as a limited share of employment shifts to businesses that produce more cleanly (see also the CPB/PBL study of 2018 on the employment effects of fiscal greening, link). Employment will shift from coal-fired power plants, agriculture, metal, consumer products and food, to wind turbines and the services sector.

The effects on the relocation of industrial activities towards other countries will be nil.
The measures leading to an increased burden on businesses concern sectors that produce mainly for domestic consumption (heavy industry is only taxed to a limited degree). The measure that could give rise to relocation is the malus part of the bonus-malus scheme for the Industrial sector, but it is not included in this evaluation and, therefore, cannot lead to a significant increase in the financial burden on industry or on relocation.

[1] For the projections of the macroeconomic effects, WorldScan[2] and Saffier[3] models were used.
[2] CPB (2006), *WorldScan: A Model for International Economic Policy Analysis, CPB Document 111* (link). *And*: Bollen, J. and Brink, C., *Air pollution policy in Europe: quantifying the interaction with greenhouse gases and climate change policies*, Energy Economics, 46 (2014), pp. 202–215.
[3] CPB (2010), SAFFIER II: 1 model for the Dutch economy, in 2 forms, for 3 applications, CPB Document 217 (link).

3.2 Income effects

This section presents the income effects related to the draft Climate Agreement.

The impact on income refers to the direct effect of proposed policies on household purchasing power, if these policies were to be fully implemented all at the same time. Compared to the regular CPB projections on purchasing power, income effects will differ on the following two points:

- CPB's regular purchasing power projections focus on income mutations, year-on-year, while the total effect of a measure or package of measures on income is outlined using the income effect, regardless of the year or period in which such measures are introduced.
- The regular purchasing power projections present the overall picture of all measures and economic developments, while, for the income effect, we usually zoom in on a specific measure or set of measures in a certain policy area (in this case climate and energy) and on abstract economic developments (e.g. wages and prices).

In addition to the direct effects of measures, we also show the effects on income, including any delayed-impact effects of policy. As is customary, the income effect is initially defined using the static purchasing power definition.[14] This, for example, assumes that policy does not change anything in terms of energy consumption or car ownership. Subsequently, a tentative calculation is then made of the delayed impact of the policy. Businesses will try to pass some of the increase in costs on to their customers, and households will then adjust their purchasing behaviour. Because it is difficult to estimate the impact on the various income groups, we made a general calculation to provide a tentative picture of the total across all groups.

In calculating the income effects, where possible, we also took into account any differences in energy consumption, car ownership and car use between groups of households.[15] CPB's regular purchasing power projections reflect the effects of climate and energy policy through inflation.[16] An increase in energy tax will lead to higher inflation and result in the same decrease in purchasing power for all income groups. Therefore, in this report, we deviated from this method and present the effects as specifically as possible.

The total level of energy consumption, however, does not play a role in the evaluation of income effects. Various measures are being taken to adjust energy taxes (such as a shift between electricity and natural gas taxation and higher tariffs for Sustainable Energy Storage (ODE)). In our calculations, we assumed that the envisaged size of the budget of the associated increases and reductions in the financial burden is leading. These increases and reductions have been translated directly into household energy costs.

In addition to the effects of the draft Climate Agreement, the effects of current climate and energy policy after 2018 were also taken into account. Even without the impact of the draft Climate Agreement, the current climate and energy policy up to and including 2030 will have certain consequences for household income, such as an increase in Sustainable Energy Storage (ODE) tax and decrease in energy tax reductions (see Table 3.2). We considered the draft Climate Agreement in conjunction with these consequences, as this provides a

[14] CPB (2016), MIMOSI: Micro-simulation model for taxation, social security, wage costs and purchasing power. CPB Background document (link).
[15] For more information about the method used for calculating the income effect, we refer to the related background document: CPB (2019), Methodological basis of the evaluation of income effects from the draft Climate Agreement, CPB Background document (link).
[16] CPB (2018), Toelichting energiebelasting in koopkrachtramingen CPB [Explanation energy taxation in CPB purchasing power projections]. CPB Communication, 4 October 2018 (link).

complete picture of how energy costs are likely to develop up to and including 2021 and 2030, as a result of policy changes.

It must be emphasised that the evaluation only relates to the policy on climate and energy. The evaluation cannot be regarded as an overview of the picture for purchasing power up to 2030, and CPB's regular purchasing power projections only provide an outlook for the short and medium term.

The effects of current climate and energy policy up to and including 2021 have been incorporated into the purchasing power assessment of the Coalition Agreement. The current evaluation provides insight into the income effects over the current Cabinet term (up to 2021) and the intended end year (2030). In both cases, the effects are compared with the base year 2018, the first year of the Rutte III Cabinet. The effects of current climate and energy policy up to and including 2021, usually, are included in CPB's regular purchasing power projections via inflation (and will result in the same effect for each household), whereas in this report, these effects are presented as specifically as possible.

Income effects of the draft Climate Agreement up to and including 2021 (excluding delayed impact)

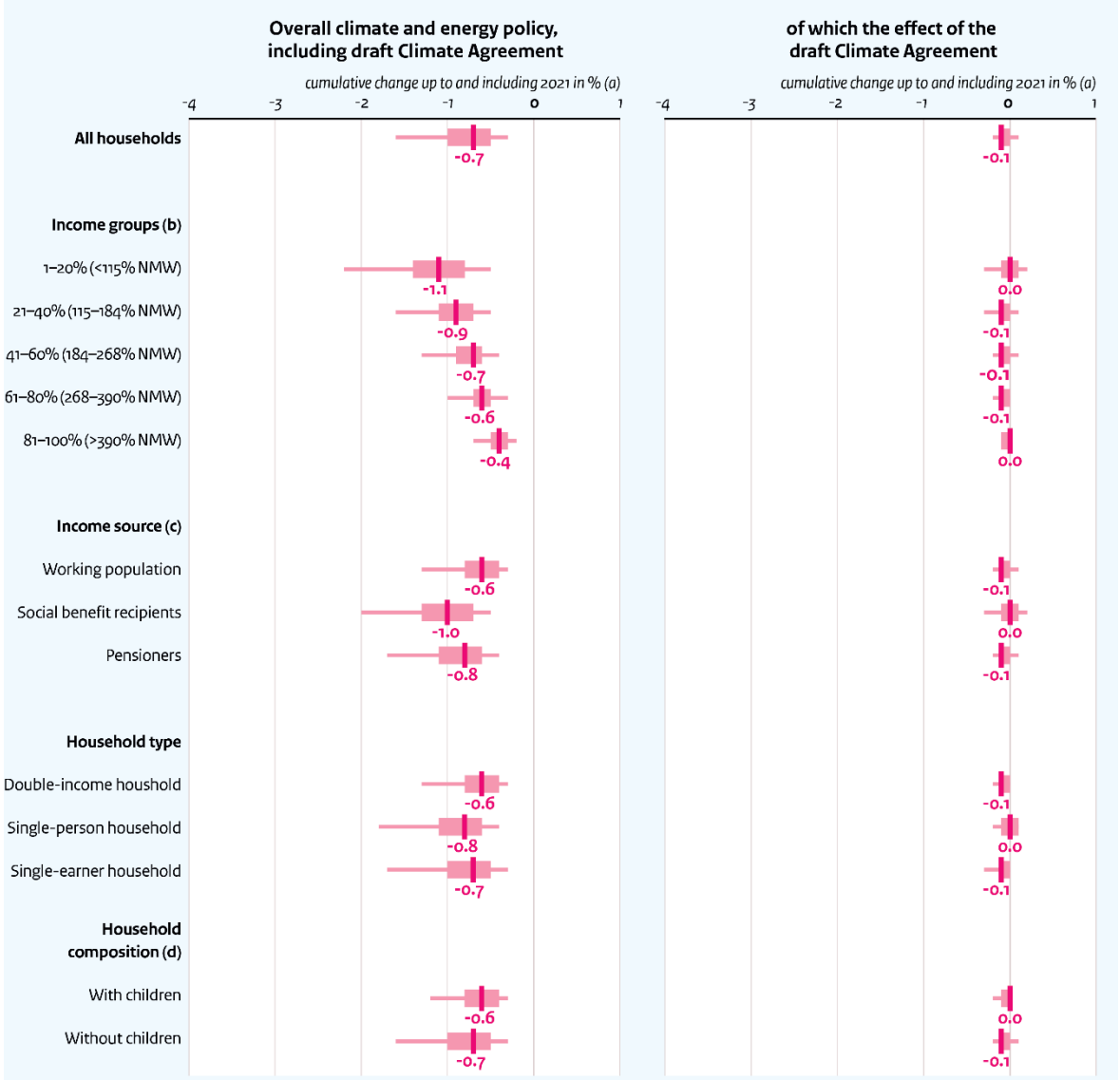
Climate and energy policy up to and including 2021 will lead to a cumulative negative income effect of 0.7%, on average, compared to 2018. This decrease is mainly due to measures that were already decided for the period up to and including 2021 — i.e. the decrease in energy tax reduction in 2019, the increases in ODE up to and including 2021, and, to a lesser degree, the shift in taxation between electricity and natural gas in 2019, and the increases in air travel tax and waste collection and processing rates.

Lower incomes will be worse off than higher incomes, up to and including 2021, as a result of climate and energy policy. This, too, will mainly be due to current policies, of which both the decrease in energy tax reduction and the increase in ODE will have an unbalancing effect. The lowest income group will experience a decline of 1.1%, while, for the highest income group, this will be 0.4%. The fact that the effects are strongly related to income level is also visible in the other breakdowns in the box plot. The average income of social benefit recipients and pensioners, for example, will deteriorate more than that of the working population, while single households and single-income households will be worse off than double-income households.

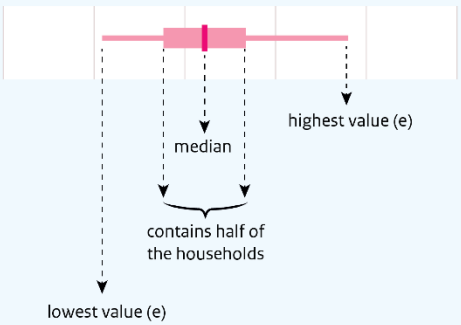
The package of measures in the draft Climate Agreement will lead to a negative income effect of 0.1% up to and including 2021. The additional shift between electricity and natural gas, up to and including 2021, the introduction of innovation surtaxes on vehicle ownership and purchase, the increase in private motor vehicle and motorcycle tax (MRB) and the increase in excise duty on petrol and diesel are unfavourable for household income, while, on the other hand, energy tax will be further decreased under the draft Climate Agreement.

The draft Climate Agreement will have a limited impact on virtually all income groups, up to and including 2021. On average, most groups will experience a 0.1% decline as a result of the measures in the draft Climate Agreement. The shift in taxation between electricity and natural gas and the introduction of an innovation surtax on vehicle ownership and purchase will have a balancing effect, whereas the increase in tax reduction will have an unbalancing effect. Although the median effect is the same for most groups, there are somewhat more negative and positive outliers for lower incomes than for higher incomes, partly depending on vehicle ownership and type of car and differences in energy consumption.

Figure 3.1 Income effects draft Climate Agreement, incl. and excl. current climate and energy policy, up to and incl. 2021



How to read?



A median is the middle value of a distribution of figures, ordered from low to high. A median income effect of 1.3% for all households means that half of households have an income effect of 1.3% or lower, and for the other half this is 1.3% or higher. For half of all households, the income effects are within the margin indicated by the pink bar, with a quarter above and a quarter below the median. The other half of households experience an income effect that is outside this range. The whiskers of the boxplot show the lowest and highest income effect.

(a) Changes in static income due to energy and climate policy, between 2018 and 2021/2030.
(b) Gross income from employment or social benefit payments, at household level; gross national minimum wage (NMW) in 2018 was approximately 20,600 euros. The income groups are divided into five groups of equal size in ascending order of income, each representing 20% of all households.
(c) The breakdown by income source is based on the highest source of income, with households whose main earner or partner has a profit-based income are categorised under the working population. Households on early retirement or student loans as their highest source of income are excluded.
(d) The breakdown by household composition is based on the presence of children up to the age of eighteen and excludes pensioner households.
(e) The lowest and highest values have been truncated at 5% and 95%, respectively, because the projected minimum and maximum are not exact.

Measures with a negative impact on income (compared to 2018):

Current climate and energy policy:

- Electricity tax will decrease and natural gas tax will increase (0.1 billion euros).
- The decrease in energy tax will be reduced by 51 euros, excluding VAT (0.5 billion euros).
- The reduction in energy taxes will not be indexed (0.1 billion euros).
- The Sustainable Energy Storage (ODE) tax will increase (0.9 billion euros).
- Air travel tax will increase (0.1 billion euros).
- Waste collection rates will increase (0.1 billion euros).
- Vehicle registration tax (BPM) will increase (0.1 billion euros).

Draft Climate Agreement:

- The tax on electricity will decrease further and tax on natural gas will increase further (0.2 billion euros).
- An innovation surtax will be imposed on the ownership and purchase of passenger vehicles (0.2 billion euros).
- Excise duty on petrol and diesel will increase (0.1 billion euros).
- Private motor vehicle and motorcycle tax (MRB) for non-electric vehicles will increase (0.1 billion euros).
- Due to net onshore and net offshore measures, net tariffs will increase (0.0 billion euros).

Measures with a positive impact on income (compared to 2018):

Current climate and energy policy:

- Private motor vehicle and motorcycle tax (MRB) will decrease (0.0 billion euros).

Draft Climate Agreement:

- The decrease in energy tax will be increased by 31 euros, excluding VAT (0.3 billion euros).
- Electric driving will be stimulated via lower vehicle registration tax (BPM) and a lower company-car-related addition to taxable income (0.0 billion euros).

There are a number of measures that will have an effect on income, but that are not included in our calculations. One of which is the net metering scheme for solar panels; this will be abolished and, instead, a subsidy scheme for solar panels will be introduced. In the absence of more specific data on households with solar panels, we assumed this change to have a neutral impact, in terms of income. Another measure that was not included is that of the reduction in the MBR for electric vehicles. This will have no effect on income, as it is part of current policy, which already anticipates continuation of a reduced MRB after 2021.

Income effects of the draft Climate Agreement, up to and including 2030 (excluding delayed impact)

Climate and energy policy up to and including 2030 will lead to a cumulative negative income effect of 1.3%, on average, compared to 2018. Approximately two thirds of this decrease are due to current climate and energy policy. Compared to the current policy effect in 2021, the further increase in ODE, up to and including 2030, and the non-indexation of the reduction in energy tax will increase the negative income effects up to and including 2030.

Lower incomes will also decline more than higher incomes, up to 2030, due to climate and energy policies. The decline for the lowest income group will be 1.8%, while for the highest income group the decline will be 0.8%, as a result of climate and energy policy between 2018 and 2030. This is largely due to current climate and energy policy, although the draft Climate Agreement also states that the decline in income will be greater for lower middle incomes than for higher incomes. As with the situation up to and including 2021, the

income of social benefit recipients and pensioners, on average, will deteriorate more than that of the working population, and single households and single-income households will be worse off than double-income households.

The package of measures in the draft Climate Agreement will lead to a negative income effect of 0.4% in 2030 (compared to 2018). Compared to the effects of the draft Climate Agreement up to and including 2021, there will be a further increase in private motor vehicle and motorcycle tax and a further shift in taxation between electricity and natural gas. On the other hand, energy tax will decrease further under the draft Climate Agreement.

The package of measures in the draft Climate Agreement in 2030 will be the most detrimental to lower middle-income earners. Lower middle incomes (0.5%), on average, will deteriorate more than the highest and lowest incomes (0.3%), as a result of the package of measures under the draft Climate Agreement. The shift in energy tax between electricity and natural gas will have an unbalancing effect, while the greater reduction in the energy tax will have a balancing impact. The further increase in MRB and the introduction of innovation surtaxes on vehicle ownership and purchase, relatively speaking, will have the strongest impact on lower middle-incomes. On average, the lowest income group will be less affected by this, because there is a lower degree of car ownership among this group, compared to the other groups. Although the lowest income group will be affected less than the middle-income group, there are more negative and positive outliers, partly depending on car ownership and type of car and differences in energy consumption.

Many of the effects of current climate and energy policy will be felt during the current Cabinet term, whereas and the effects of measures related to the draft Climate Agreement will be felt especially after that term. Approximately two thirds of the impact of current policy will occur in the period up to and including 2021, while around three quarters of the effects of the draft Climate Agreement measures will have an impact after the end of the current Cabinet term.

Measures with a negative impact on income (compared to 2018):

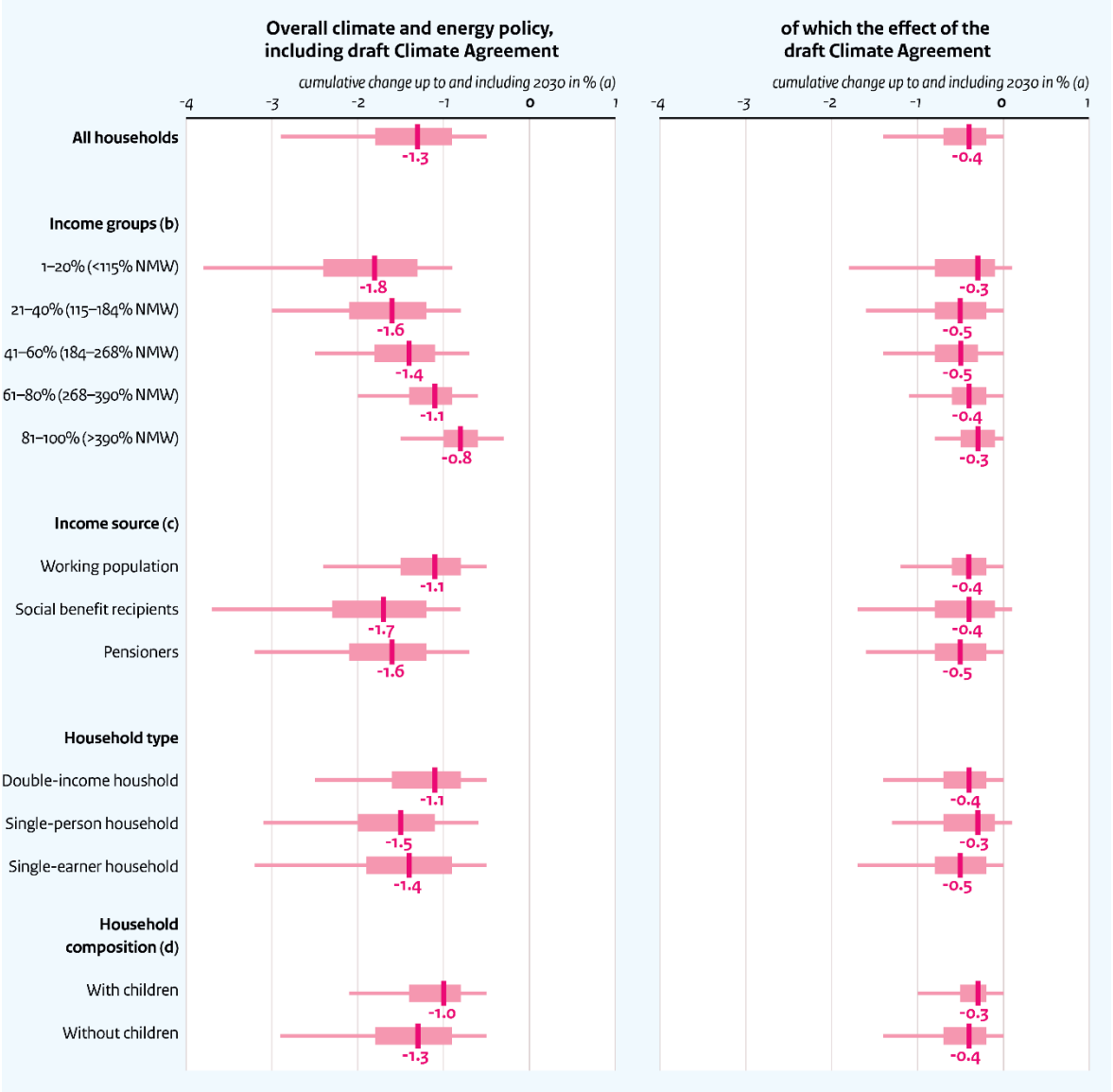
Current climate and energy policy:

- The tax on electricity will decrease and the tax on natural gas will increase (0.2 billion euros).
- The decrease in energy tax will be reduced by 51 euros, excluding VAT (0.5 billion euros).
- The reduction in energy taxes will not be indexed (0.4 billion euros).
- Sustainable Energy Storage (ODE) tax will increase (1.1 billion euros).
- Air travel tax will increase (0.1 billion euros).
- Waste collection rates will increase (0.1 billion euros).
- Vehicle registration tax (BPM) will increase (0.1 billion euros).

Draft Climate Agreement:

- The tax on electricity will decrease further and tax on natural gas will increase further (0.5 billion euros).
- Innovation surtaxes will be imposed on the ownership and purchase of passenger vehicles (0.3 billion euros).
- Excise duty on petrol and diesel will increase (0.1 billion euros).
- Private motor vehicle and motorcycle tax (MRB) for non-electric vehicles will increase (1.0 billion euros).
- Due to net onshore and net offshore measures, net tariffs will increase (0.3 billion euros).

Figure 3.2 Income effects of the draft Climate Agreement, incl. and excl. current climate and energy policy, up to and including 2030



Measures with a positive impact on income (compared to 2018):

Current climate and energy policy:

- Private motor vehicle and motorcycle tax (MRB) will decrease (0.0 billion euros).

Draft Climate Agreement:

- The decrease in energy tax will be increased by 58 euros, excluding VAT (0.6 billion euros).
- Electric driving will be stimulated via lower vehicle registration tax (BPM) and a lower company-car-related addition to taxable income (0.0 billion euros[17]).

There are a number of measures that will have an effect on income, but were not included in our evaluation. One of those measures concerns the abolition of the net metering scheme for solar panels, which will be

[17] This is the static effect, assuming a constant level of consumption. See also the text box on the income effects of electric driving, further on in this section.

replaced by a subsidy scheme for solar panels. In the absence of more specific data on households with solar panels, we assumed this change to have a neutral impact on income. In addition, the MRB on electric vehicles will be lower. This will have no effect on income, as it is part of current policy, which already anticipates continuation of the reduced MRB after 2021.

Income effects of the draft Climate Agreement, up to and including 2030, including provisional estimation of delayed impact

In addition to the direct income effects of energy and climate policy, delayed-impact effects also play a role in this evaluation.[18] The direct income effects of climate and energy policy in 2030 (Figure 3.2) are based on current household energy consumption, car ownership and use, and on the share of the increase in costs that households will incur. This section considers two additional elements:

- Estimation of the transfer effects due to increases in the financial burden on businesses that will result in higher prices for end users.
- Estimation of the effects on household behaviour as a result of climate and energy policy.

Because of the provisional nature of this evaluation, we calculated the behavioural, price and transfer effects only at the macro level and applied them to the median income effect for all households, see Figure 3.2. This is discussed in more detail in the text boxes on electric vehicles and investment costs, further on in this section.

Figure 3.3 shows that the estimated transfer effect equals -0.6%. This additional decline comes on top of the direct income effect of -1.3% due to climate and energy policy, between 2018 and 2030. The underlying assumption being that businesses will pass approximately 80% of the increase in financial burden on to their customers in the form of higher prices.[19]

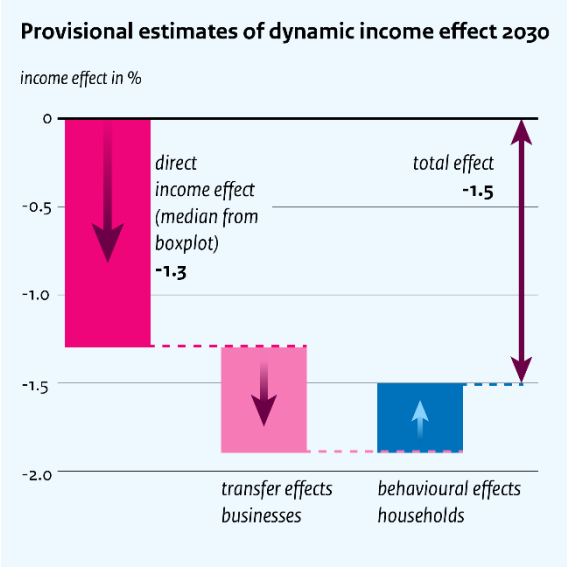
Behavioural effects will alleviate the negative impact on income by an estimated 0.4%. This is mainly due to the expected increase in electric cars, as quantified by PBL (see also the text box 'Explanation of the income effects of electric driving'). It should, however, be noted that these behavioural effects are probably not uniformly distributed across households, and that these calculations do not take account of investment costs for households (see also the text box 'Positive behavioural effects depend on willingness and ability to invest').

On balance, the delayed-impact effects will lead to an additional income effect of -0.2%, raising the income effect from energy and climate policy to -1.5%. It must, however, be emphasised that this evaluation has a provisional character. For the regular purchasing power projections, a static approach is used and behavioural changes are not taken into account, as these are difficult to predict.

[18] The provisional estimate of the delayed-impact effects is only available for overall climate and energy policy, including the draft Climate Agreement. After all, this is the effect that citizens will experience up to and including 2030. An estimate of the impact of the draft Climate Agreement is not available, because it is not known how the behavioural response will be without the draft Climate Agreement. Such an analysis was beyond the scope of our evaluation.

[19] For more information on this percentage, see the methodological justification at the calculated income effects elsewhere in this document. See CPB (2019), Methodological basis of the evaluation of income effects from the draft Climate Agreement, CPB Background document (link).

Figure 3.3 Income effects of current policy + draft Climate Agreement up to and including 2030, including provisional estimates of delayed impact

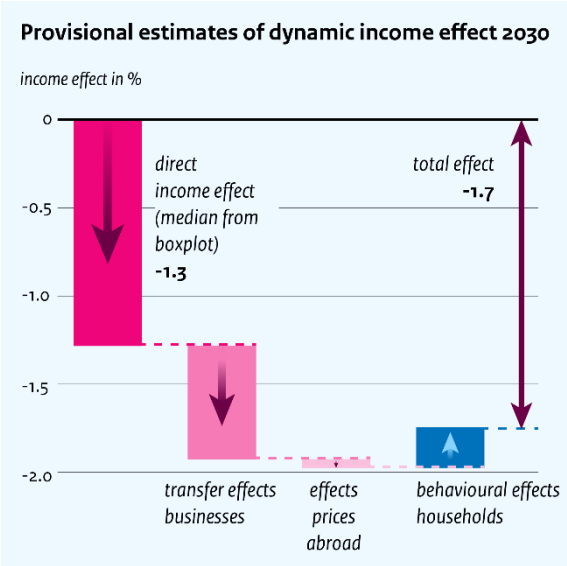


If climate policy abroad is also taken into account, the income effect increases further to -1.7% (Figure 3.4). Such policies have an impact on both prices and behaviour.

Price effects caused by policies abroad lead to an additional income effect of -0.1%. In order to do some justice to current policy developments in Europe, the provisional part of income effects concerns the effect of assumptions in the WLO-HIGH scenario.[20] In Europe, on the one hand, there is the phase-out of coal-fired power plants and higher EU ETS prices. This means that electricity prices will almost double by 2030. On the other hand, the natural gas price will be halved, as a result of a fall in demand. This, on balance, will result in higher energy bills.

The behavioural effects will decrease from -0.4% to -0.2%, taking into account price effects abroad. These concern an increase in the demand for natural gas and savings with respect to electricity due to policies abroad.

Figure 3.4 Income effects of current policy + draft Climate Agreement up to and including 2030, including provisional estimates of delayed-impact effects and price effects of policy abroad



[20] CPB and PBL (2016), Klimaat en Energie [climate and energy], Background document WLO (link).

Explanation of the income effects of electric driving

Direct income effects show the impact when there is no switch to electric driving. The calculated income effects in Figures 3.1 and 3.2 are based on the definition of static purchasing power. They are based, for example, on current car ownership of households in the Netherlands, with hardly any households owning an electric car. For mobility and transport measures, they particularly show the income effects for households assuming no switch to electric driving in the coming years.

The provisional evaluation of behavioural effects, however, does assume an increasing share of electric cars. The share of households with an electric car in the Netherlands currently amounts to approximately 1% of the national car fleet. According to PBL Netherlands Environmental Assessment Agency, this share will increase to approximately 16% by 2030, after implementation of climate and energy policy. This increase has been taken into account in the provisional income effect (Figure 3.3) by weighting the benefits more heavily in the income effects for households that do own an electric car. Advantages of switching to electric driving include a lower private motor vehicle and motorcycle tax (MRB) and avoidance of the proposed policy increases in the financial burden for non-electric vehicles. In addition, the purchase of electric vehicles will be subsidised[1] and consumption costs will be lower[2], but these are not included in the calculated income effect.

Behavioural effects of electric driving are likely not to be divided equally over the income groups. In Figure 3.3, these effects have only been calculated and applied to the median perspective for all households, as it is difficult to correctly predict to what degree and how many households will make the switch to electric driving. It is, however, quite conceivable that certain income groups (e.g. higher income groups) will be able to make that switch earlier than others. Conversely, switching to electric driving would have a greater financial impact on lower incomes. For example, the lower motor vehicle tax rate (MRB) for electric cars (average annual effect of 130 euros per household, compared to those that own a car on petrol) means a positive income effect of 0.7% for a single person household earning the statutory minimum wage, while for a single person household earning twice the average wage, this is 0.3%. Much, therefore, ultimately depends on individual choices and possibilities for switching to electric driving.

Table 3.1 Income effect of switching to electric driving (based on average difference in MRB rates between electric and petrol cars of 130 euros)

NMW	0.7%	Average income	0.5%	2x Average income	0.3%

1 The purchasing subsidy is mainly intended to make electric vehicles as attractive as other types of vehicles.
2 The consumption costs of electric vehicles are lower than those of other types of vehicles.

Positive behavioural effects depend on possibilities and willingness to invest

The main purpose of the evaluation is to provide an overall picture of the income effects of climate and energy policy. The specific impacts on households will ultimately strongly depend on individual choices and the possibilities for behavioural changes.

Behavioural changes can alleviate negative income effects. The evaluation of the income effects shown in Figure 3.3 take into account the fact that some households will change the way they use energy and, in particular, also their car, as a result of energy and climate measures up to and including 2030. Less energy consumption, for example, means lower costs, which thus alleviates the direct income effect.

Savings made possible thanks to investments, among other things. In order to reduce energy and mobility costs, investments are also needed, such as in home insulation, heat pumps and electric vehicles. The draft Climate Agreement includes various measures to enable the financing of such investments.

The costs of investments needed are not included in the evaluation of the income effects. Although the investments needed to reduce the financial burden related to energy and car ownership are sometimes accompanied by high costs, these are not included in the calculated income effects in this report. Although behavioural changes are envisaged, there is as yet no legal obligation for households to make the desired changes to their own homes, for example. Much will depend on how, when and for which neighbourhoods such plans will be developed and who will foot the bill for the adjustments they entail. Various possibilities for financing these investments are being introduced, which will allow the costs to be spread over a longer period of time.

Positive income effects related to behaviour likely not evenly distributed. As with the measures related to electric driving, the positive effect of behavioural changes has only been considered for all households as a whole. In practice, however, some groups are likely to have more investment opportunities than others (e.g. because of higher incomes), and the impact of investments for certain groups is likely to be greater than for others (e.g. lower incomes). Furthermore, investment costs for some buildings are likely to be higher than for others, and the financing of such costs also differs between groups (e.g. rental and owner-occupied housing).

4 Cabinet variants

This chapter contains a number of additional variants proposed by the Rutte III Cabinet. Not every variant of a measure in the draft Climate Agreement was worked out in sufficient detail for our evaluation (see also CPB's assessment framework in Appendix A). As far as possible, connections were sought with PBL's assessment of the variants. The Cabinet did not issue any variants for the Electricity sector, and their variant for the Industrial sector (increased malus scheme) was not included in the evaluation.[21] Table 4.1 provides an overview of the variants for which CPB was able to work out the effects on budget and income (see Appendix D for details).[22]

Table 4.1 Overview of Cabinet variants

Sector	Measure from the draft Climate Agreement	Cabinet variant (replacing measure in column on the left)
Built Environment	Shift in energy tax and temporary increase in the budget for sustainable energy investment subsidy (ISDE)	Alternative shift in energy tax and no increase in the budget for sustainable energy investment subsidy (ISDE)
Agriculture and Land use	Budget expenditure of 30 million euros	Budget expenditure of 70 million euros
Mobility and Transport (#1)	Innovation surtax on car ownership of 25 euros/year	Increase air travel tax to 15 euros/ticket
Mobility and Transport (#2)	Stimulation of zero-emission vehicles via BPM, MRB, company-car-related addition to taxable income, and private car purchase subsidy	Generic purchasing subsidy on zero-emission vehicles

4.1 Overview of expenditures and financial burden

The Cabinet variants for the Built Environment sector and the Agriculture and Land-use sector and the generic subsidy on car purchase for the Mobility and Transport sector are the only variants with an effect on overall expenditure. The air travel tax variant for the Mobility and Transport sector will only affect the financial burden side of the budgetary effects. None of the Cabinet variants include a change in non-EMU-related costs. For each sector, a summary table explains the Cabinet variants.

[21] The increased malus scheme for the Industrial sector, similar to that in the draft Climate Agreement, has a great deal of ambiguity about design, the circumstances under which such a scheme would take effect and its practical feasibility.
[22] For the incentive measures for zero-emission cars, a Cabinet variant has been submitted in which these measures are covered entirely from BPM revenues. As a result of the necessary increase in BPM, the sales of petrol and diesel cars will largely come to a halt, which in turn means that there will no longer be any revenues to cover the costs of the incentive measures (for an explanation, see PBL (2019), Beoordeling ontwerp-Klimaatakkoord [assessment of the draft Climate Agreement]). Due to the lack of the necessary information, the variant proposed by PBL, which includes partial coverage from the BPM revenues, was not included in this evaluation.

Table 4.2 Climate and energy policy, including draft Climate Agreement with Cabinet variant for the Built Environment (billion euros, 2018 price level)

	Overall climate and energy policy, including draft Climate Agreement with Cabinet variant for the Built Environment			Mutations compared to overall climate and energy policy, including draft Climate Agreement		
	2021	2025	2030	2021	2025	2030
Net increase in spending	4.1	4.8	4.4	-0.1		
Total in policy-related financial burden	3.6	4.8	5.2	-0.0	+0.0	+0.0
- Households	2.3	2.7	3.1	-0.1	-0.0	+0.0
- Businesses	1.3	2.0	2.0	0.1	+0.0	-0.0
- Abroad	0.1	0.2	0.2			
Non-EMU-related financial burden	0.2	1.1	1.6			
- Households	0.0	0.1	0.3			
- Businessses	0.2	1.0	1.3			

Cells without mutation have been left empty. +0.0 (-0.0) means a limited positive (negative) mutation.

The variant for the Built Environment sector does not involve a temporary increase in the ISDE budget. From 2020 to 2022, expenditures will be 50 million euros lower. Rounded off, the overall net spending increase will be 4.1 billion euros in 2021 (Table 4.2). On balance, the alternative shift in the energy tax will result in a limited decrease in the financial burden in 2021 and a limited increase in both 2025 and 2030, compared to the original shift. The burden-reducing effect in the early years only concerns households. For them, overall climate and energy policy, including the draft Climate Agreement, in this variant, will result in a policy-related increase of 2.3 billion euros in the financial burden in 2021 and 3.1 billion euros in 2030. For businesses, the variant represents an increase in the financial burden, compared to the impact of the measure from the draft Climate Agreement. The policy-related financial burden on businesses will amount to 1.3 billion euros in 2021, and up to 2.0 billion euros by 2030.

The increased expenditure, in the variant for the Agriculture and Land-use sector, is directly reflected in the overall expenditure. The variant increases expenditure across the board, in all years from 2020 onwards (Table 4.3). The net spending increase for overall climate and energy policy, including the draft Climate Agreement, in the Cabinet variant, remains 4.2 billion euros in 2021. Net spending increases in 2025 and 2030 will amount to 4.9 and 4.5 billion euros, respectively.

In the first Cabinet variant for the Mobility and Transport sector (MOB#1), the innovation surtax on car ownership will be replaced by a higher tax on air travel, from 2021 onwards. On balance, this means an increase in financial burden, compared to the impact of the original measure (Table 4.4). This increase will mainly affect other countries and, to a certain degree, also businesses in the Netherlands. For households, the variant represents a burden-reducing effect compared with the innovation surtax on car ownership. The financial burden on households from the overall climate and energy policy, including the draft Climate Agreement, in this variant, will be 2.3 billion euros in 2021 and up to 3.0 billion euros in 2030. Abroad, the policy-related financial burden will increase from 0.2 billion euros in 2021 to 0.3 billion euros in 2030.

Table 4.3 Climate and energy policy, including the draft Climate Agreement with the Cabinet variant for Agriculture and Land use (billion euros, 2018 price level)

	Overall climate and energy policy, including draft Climate Agreement with Cabinet variant for Agriculture and Land use			Mutations compared to overall climate and energy policy, including draft Climate Agreement		
	2021	2025	2030	2021	2025	2030
Net increase in spending	4.2	4.9	4.5	+0.0	0.1	0.1
Total in policy-related financial burden	3.7	4.8	5.2			
- Households	2.4	2.7	3.0			
- Businesses	1.2	2.0	2.0			
- Abroad	0.1	0.2	0.2			
Non-EMU-related financial burden	0.2	1.1	1.6			
- Households	0.0	0.1	0.3			
- Businessses	0.2	1.0	1.3			

Cells without mutation have been left empty. +0.0 (-0.0) means a limited positive (negative) mutation.

Table 4.4 Climate and energy policy, including the draft Climate Agreement with Cabinet variant Mobility and Transport #1 (billion euros, 2018 price level)

	Overall climate and energy policy, including draft Climate Agreement with Cabinet variant for Mobility and Transport (#1)			Mutations compared to overall climate and energy policy, including draft Climate Agreement		
	2021	2025	2030	2021	2025	2030
Net spending increase	4.2	4.8	4.4			
Total in policy-related financial burden	3.7	4.9	5.3	+0.0	0.1	0.1
- Households	2.3	2.6	3.0	-0.1	-0.1	-0.1
- Businesses	1.2	2.0	2.0	+0.0	+0.0	0.1
- Abroad	0.2	0.3	0.3	0.1	0.1	0.1
Non-EMU-related financial burden	0.2	1.1	1.6			
- Households	0.0	0.1	0.3			
- Businessses	0.2	1.0	1.3			

Cells without mutation have been left empty. +0.0 (-0.0) means a limited positive (negative) mutation.

Table 4.5 Climate and energy policy, including the draft Climate Agreement and Cabinet variant for Mobility and Transport #2 (billion euros, 2018 price level)

	Overall climate and energy policy, including draft Climate Agreement with Cabinet variant for Mobility and Transport (#2)			Mutations compared to overall climate and energy policy, including draft Climate Agreement		
	2021	2025	2030	2021	2025	2030
Net spending increase	4.5	5.5	5.1	0.3	0.7	0.6
Total in policy-related financial burden	3.9	5.4	5.8	0.3	0.7	0.6
- Households	2.5	3.2	3.5	0.2	0.5	0.5
- Businesses	1.3	2.1	2.1	0.1	0.1	0.1
- Abroad	0.1	0.2	0.2			
Non-EMU-related financial burden	0.2	1.1	1.6			
- Households	0.0	0.1	0.3			
- Businessses	0.2	1.0	1.3			

Cells without mutation have been left empty. +0.0 (-0.0) means a limited positive (negative) mutation.

In the second Cabinet variant for the Mobility and Transport sector (MOB#2), the stimulation measure for zero-emission cars by means of the vehicle registration tax (BPM), private motor vehicle and motorcycle tax (MRB), additional taxable income and the purchase subsidy on zero-emission private vehicles, is replaced by a generic purchase subsidy on zero-emission privately owned as well as company vehicles. On balance, this will both increase spending and increase the financial burden, compared with the original measures (Table 4.5). The rising net spending increase will be due to the new generic purchase subsidy. In the first years, it is mainly the business segment that is entitled to this subsidy, with a shift towards the private segment in later years. By 2030, half of the subsidy is expected to be allocated to households and the other half to businesses. The burden-increasing effect of this variant is the result of the removal of the tax incentive for zero emission vehicles and this will partly affect both households and businesses. The financial burden on households due to the overall climate and energy policy, including the draft Climate Agreement, in this variant, will be 2.5 billion euros in 2021 and up to 3.5 billion euros in 2030. For businesses, the financial burden will increase from 1.3 billion euros in 2021 to 2.1 billion euros in 2030.

4.2 Income effects

Income effects of the draft Climate Agreement up to and including 2021, with Cabinet variants (excluding delayed impact)

Figures 4.1 and 4.2 show the income effects of climate and energy policy up to and including 2021, based on the Cabinet variant for the Built Environment (*Gebouwde omgeving*, GO) and the first Mobility and Transport variant (MOB #1).[23] First, the various measures in the Cabinet variants are compared against the main package of measures in Section 3.2.

[23] The second Cabinet variant for Mobility and Transport (MOB #2) is primarily intended to use a generic purchase subsidy to make the purchase of an electric vehicle about as attractive as the purchase of another type of car, and, in itself, will not effect household

Variant GO

Changes with a positive impact on income:

- The decrease in energy tax will be increased by another 27 euros in 2021
- Electricity tax will decrease further, in 2021 (0.1 billion euros).

Changes with a negative impact on income:

- The tax on natural gas will increase (0.3 billion euros).

Variant MOB (#1)

Changes with a positive impact on income:

- Introduction of an innovation surtax on the ownership and purchase of passenger vehicles (0.2 billion euros).

Changes with a negative impact on income:

- The tax on natural gas will increase (0.05 billion euros).

The changes in the BE Cabinet variant have a slightly positive income effect related to climate and energy policy, up to and including 2021. The situation described earlier remains largely the same. The further increase in natural gas tax will be offset by the reduction in the tax on electricity and the additional tax reduction. On balance, this results in a small decrease in the financial burden.

The changes in the MOB (#1) variant also have a slightly positive income effect related to climate and energy policy, up to and including 2021. Not introducing an innovation surtax on vehicle ownership will have a greater effect on household income than the further increase in the air travel tax (which is included in the income effect via inflation).

purchasing power. The generic purchase subsidy is therefore not included in the calculated income effects. The Cabinet variant for Agriculture and Land Use involves an increase in public spending and therefore also has no purchasing power effects for households.

Figure 4.1 Income effects of the draft Climate Agreement, up to and including 2021, with the Cabinet variant for the Built Environment (GO)

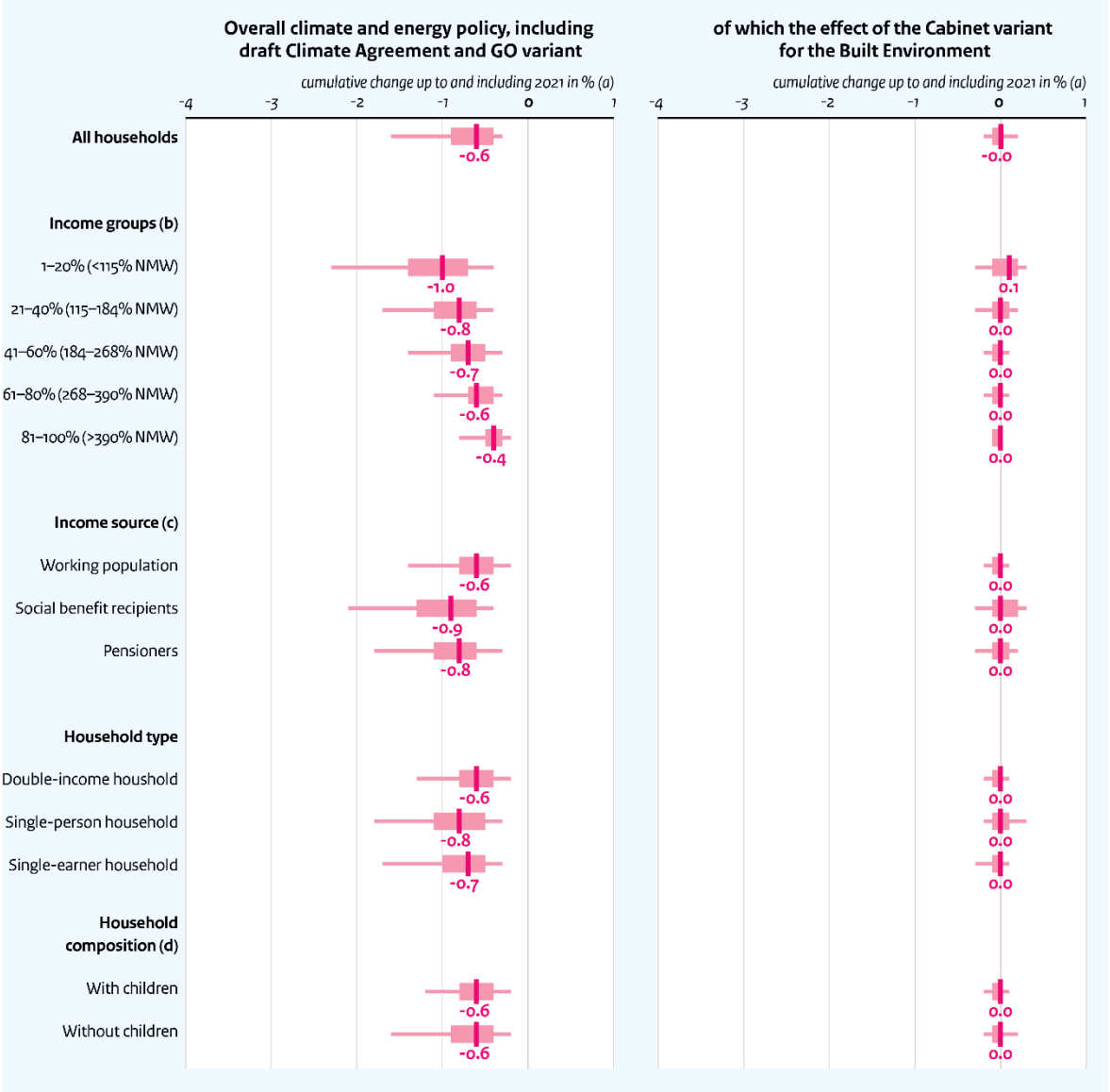
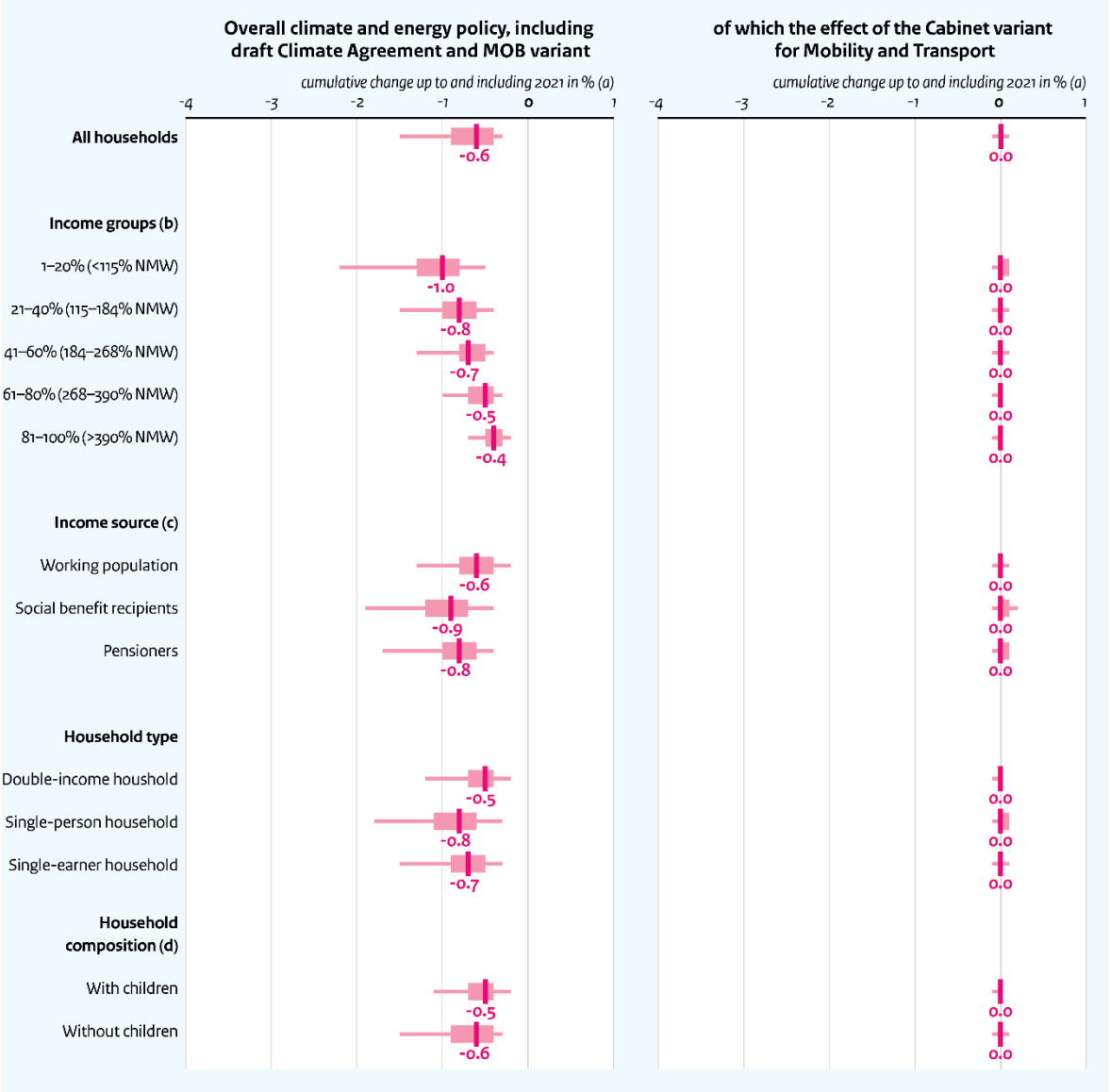


Figure 4.2 Income effects of the draft Climate Agreement, up to and including 2021, with the Cabinet variant for Mobility and Transport (MOB (#1))



Income effects of the draft Climate Agreement, up to and including 2030, with the Cabinet variants (excluding behaviour and transfer effects)

Figures 4.3 and 4.4 provide insight into the income effects related to climate and energy policy, up to and including 2030, based on the Cabinet variant for the Built Environment (GO) and the first Cabinet variant for Mobility and Transport (MOB #1).[24] Below, first, the various measures in the Cabinet variants are compared against the main package of measures in Section 3.2.

GO variant

Changes with a negative impact on income

- Lower reductions in energy tax in 2030 (0,0 billion euros).

MOB#1 variant

Changes with a positive impact on income

- There will be no innovation surtax on the ownership of passenger vehicles (0.2 billion euros in 2030).

Changes with a negative impact on income

- Air travel tax will increase further (0.1 billion euros in 2030).

The changes in the GO Cabinet variant will be very small in 2030 and have little impact on the income effect related to climate and energy policy, up to and including 2030. The effects are virtually the same as those of the draft Climate Agreement, up to and including 2030 (Figure 3.2).

The changes in the MOB#1 Cabinet variant have a slightly positive income effect related to climate and energy policy, up to and including 2030. Not introducing an innovation surtax on vehicle ownership will have a greater effect on household income than the further increase in the air travel tax (which is included in the income effect via inflation[25]).

[24] Because of the small differences compared to the draft Climate Agreement, we have not carried out separate analyses of the dealyed impact effect up to and including 2030, for the GO and MOB#1 Cabinet variants

[25] CPB (2019), Methodological basis of the evaluation of income effects from the draft Climate Agreement, CPB Background document (link).

Figure 4.3 Income effects of the draft Climate Agreement, up to and including 2030, with the Cabinet variant for the Built Environment (GO)

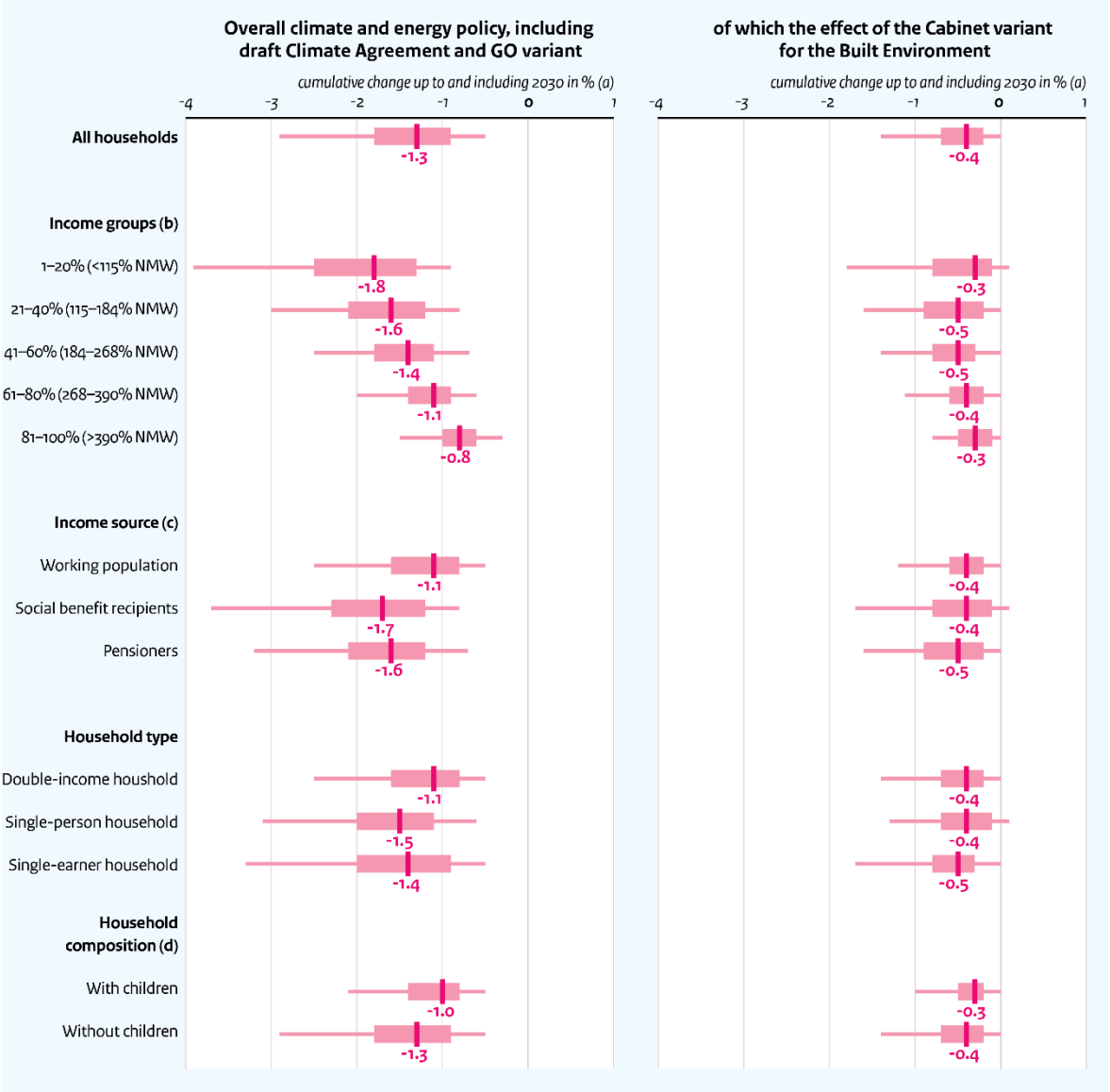
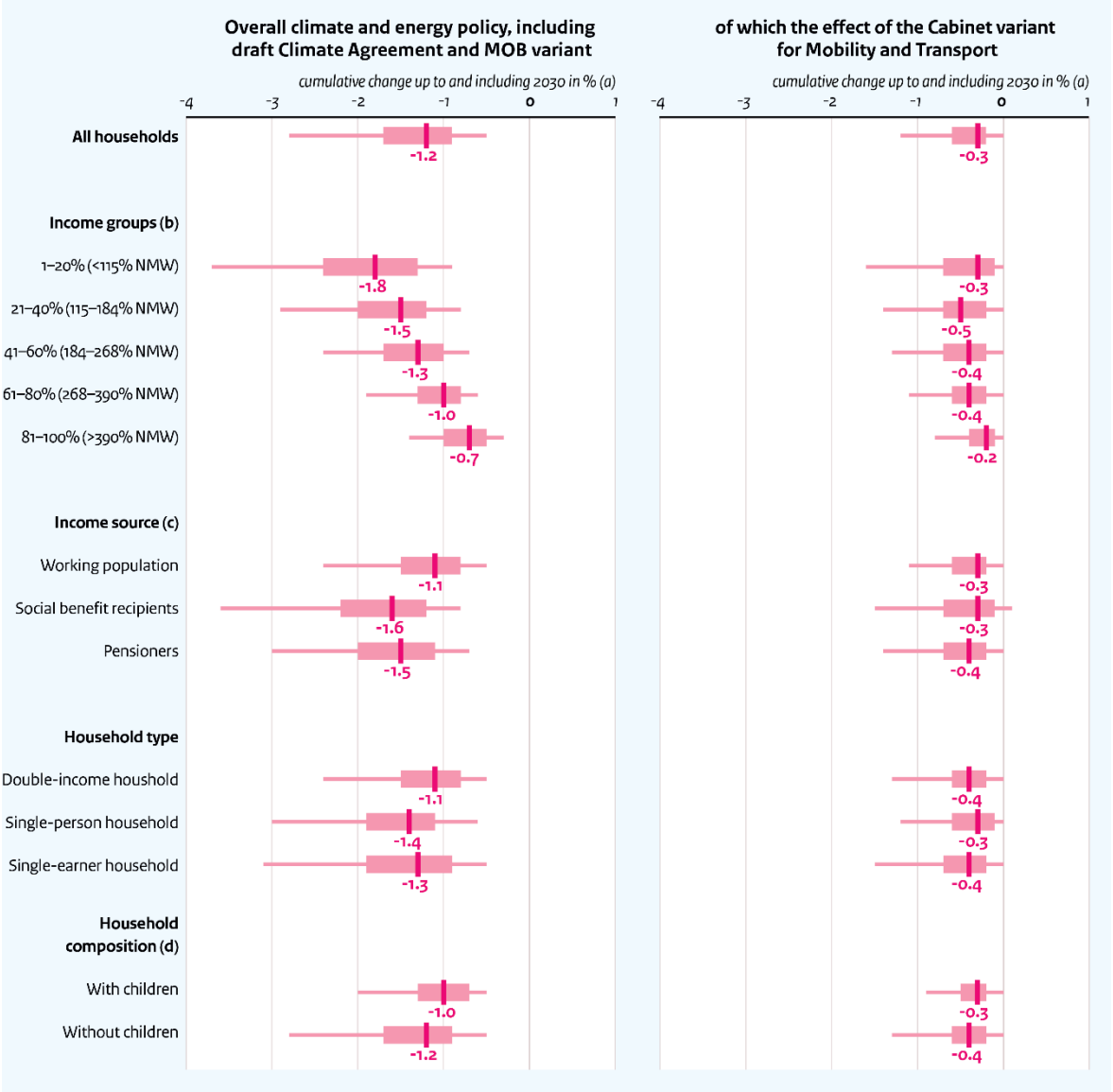


Figure 4.4 Income effects draft Climate Agreement, up to and including 2030, with the MOB Cabinet variant



Appendix A: Assessment framework

CPB assessed the measures in the draft Climate Agreement and the additional variants presented by the Rutte III Cabinet against a number of criteria, as it does for all its assessment work[26], before including those measures in its evaluation. This method shows what concrete steps are taken by which parties and within which timeframe, and how the parties will be held accountable for complying with the agreements. In order to outline the budgetary, financial burden and income effects, it is important to show the chosen instruments and their level of intensity, as well as the time of implementation.

The measures and variants also had to be unilaterally implementable by the national government. Where measures and variants reflect contracts or agreements with other parties (e.g. local authorities or parties from civil society), these needed to be legally binding. Alternatively, the national government had to be able to implement a 'last resort' measure, if measures or variants that fall under the responsibility of other parties would not be complied with.

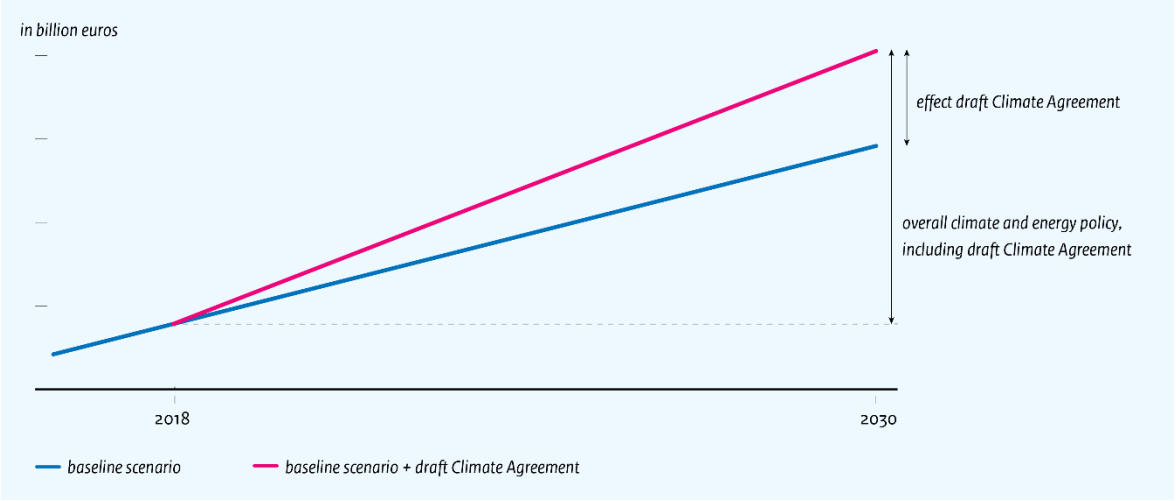
Another criterion concerned the fact that measures and variants had to be implemented during this Cabinet term or would have a broadly logical growth path.[27] Furthermore, measures and variants needed to be legally tenable and feasible in terms of implementation. The legal assessment does not have the weight of a formal legal analysis, but broadly examines whether measures and variants fall within constitutional and international legal frameworks. The implementation was also assessed on its main aspects.

Appendix B: Baseline scenario

Households and businesses will both be affected by the changes in policy measures from the draft Climate Agreement and by current policy on climate and energy. Current policies and those of previous governments have consequences for public expenditure, the financial burden on households and businesses, as well as for household incomes. What particularly affects both households and businesses is the *overall* effect of climate and energy policy, which includes that of the draft Climate Agreement. For this overall impact, it makes little difference whether the evaluation is presented in comaprison to the baseline scenario or any of the reference scenarios. The overall impact also relates to whether or not climate objectives will be achieved. Figure B.1 shows a stylised representation of the relationship between the baseline scenario and the draft Climate Agreement.

[26] Also see the Protocol for the Policy Assessment Agencies (link).
[27] CPB, 2017, Charted Choices 2018–2021: an analysis of 11 election manifestos (link).

Figure B.1 Stylised representation of the baseline scenario and the draft Climate Agreement



In this evaluation, CPB presents the effects of the draft Climate Agreement, compared to the Coalition Agreement as updated in December 2018.[28] The basline scenario is based on the December forecast 2018.[29] The measures of the draft Climate Agreement are therefore presented in relation to the most recent situation of the implemented policy from the Coalition Agreement.

A number of policy measures relevant to this evaluation (within this Cabinet term) are included in the climate and energy policy under CPB's baseline scenario, but not in PBL's reference scenario. PBL assesses the effects compared against the National Energy Outlook 2017.[30] This does not lead to differences in the final picture of CO_2 effects, but does lead to differences in the distribution between current policy (baseline scenario) and the draft Climate Agreement. For example, CPB's baseline scenario does include the non-EMU-related financial burden from the closure of coal-fired power plants and European CO_2 standards for heavy goods vehicles and delivery vans, but these are not included in PBL's reference scenario. In other words, PBL is attributing the closure of the coal-fired power plants and the European CO_2 standards for heavy goods vehicles and delivery vans to the draft Climate Agreement, while CPB considers the measures to be part of the baseline scenario. The same applies to a budget of of 0.5 billion euros earmarked for CO_2 reduction measures according to the Urgenda.[31] Table B.1 gives an overview of the expenditures and financial burden included in CPB's baseline scenario, but which are allocated to the draft Climate Agreement according to PBL's assessment.

[28] See CPB, 2018, December projections, economic outlook 2019, CPB Policy Brief (link).
[29] [29] See CPB, 2018, December projections, economic outlook 2019, CPB Policy Brief (link).
[30] See ECN, PBL, CBS and RvO.nl, 2017, National Energy Outlook 2017 (link).
[31] The budget reserve of 0.5 billion euros for measures of CO_2 reduction according to the Urgenda is included in CPB's baseline scenario. The scenario assumes equal payouts from this reserve over 2019 and 2020.

Table B.1 Relevant differences: aspects included in CPB's baseline scenario, but not in PBL's reference scenario (billion euros, 2018 price level)

Number	Measure	2021	2025	2030
CPB_101	Other energy fiscal policy (households)	0.488	0.488	0.488
CPB_102	Other energy fiscal policy (businesses)	0.131	0.131	0.131
CPB_103	Abolition net metering scheme energy tax	0.231	0.373	0.553
CPB_104	Abolition net metering scheme energy tax (VAT) (households)	0.020	0.034	0.054
CPB_105	Abolition net metering scheme energy tax (VAT) (businesses)	0.007	0.011	0.018
CPB_110	Implementation air travel tax (households)	0.055	0.055	0.055
CPB_111	Implementation air travel tax (businesses)	0.055	0.055	0.055
CPB_112	Implementation air travel tax (other countries)	0.110	0.110	0.110
CPB_113	Increase in tax on waste incineration and disposal (households)	0.053	0.053	0.053
CPB_114	Increase in tax on waste incineration and disposal (businesses)	0.053	0.053	0.053
CPB_115	Decrease in tax on rental earnings	-0.180	-0.207	-0.207
CPB_120	Climate package Rutte III Cabinet	-0.300	-0.300	-0.300
CPB_121	Active restructuring package	-0.028	-0.005	0.000
CPB_122	Implementation subsidy on feed-in tariffs	-0.285	-0.285	-0.285
CPB_127	Spending increase in Infrastructure Fund	-0.100	-0.100	-0.100
CPB_128	Incidental spending increase in Delta Fund[32]	0.000	0.000	0.000
CPB_129	Incidental spending increase from natural gas of low caloric value to that of high caloric value	-0.030	0.000	0.000
CPB_131	Earmarked budget Urgenda Decision	0.000	0.000	0.000
Total		0.280	0.466	0.678
Non-EMU-related financial burden				
CPB_125	Closure of coal-fired power plants, towards 2030	0.075	0.399	0.570
CPB_126	EU standards for heavy goods vehicles and light commercial vehicles (LCVs)	0.000	0.281	0.000
Total		0.075	0.680	0.570
+ : balance improvement / increase in financial burden				

Other relevant climate and energy policies that are explicitly included in CPB's baseline scenario, such as SDE and ODE, are also included in PBL's reference scenario. To ensure consistency between PBL's CO_2 reduction and the overall budget (expenditures and financial burden), CPB uses the SDE+ expenditure series and the ODE series of PBL for the baseline scenario, for the period following this Cabinet term. Both series stem from the National Energy Outlook 2017 (NEV 2017).[33] This concerns funds that have been set aside (ODE) for the SDE subsidies, which will increase from 1.7 billion euros in 2019 to 2.8 billion in 2030. The subsidy-related expenditure under the baseline scenario is significantly lower than the ODE, because no new SDE

[32] These concern incidental spending increases in 2019 and 2020, together totalling 0.2 billion euros.
[33] See ECN, PBL, CBS and RvO.nl. (2017), National Energy Outlook 2017 (link).

subsidies will be awarded after 2019 (see Figure B.2).[34] Compared to the baseline scenario, more SDE subsidies can be allocated during the 2019–2030 period, as is stipulated in the draft Climate Agreement. In addition, current climate and energy policy in CPB's baseline scenario also includes other relevant policies that are also included in PBL's reference scenario. Table B.2 shows this in an overview.

Figure B.2 Sustainable Energy Production (SDE (+/++)) and Sustainable Energy Storage (ODE) tax, under the baseline scenario

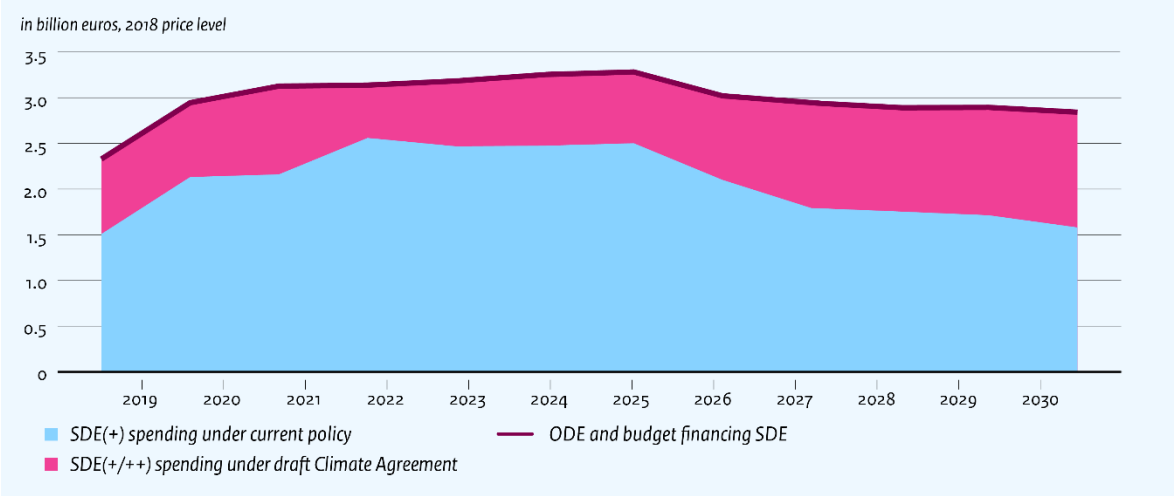


Table B.2 Other current climate and energy policies (billion euros, 2018 price level)

Number	Measure	2021	2025	2030
CPB_106	Vehicle registration tax (BPM) policy (households)	-0.112	-0.112	-0.112
CPB_107	Vehicle registration tax (BPM) policy (businesses)	-0.028	-0.028	-0.028
CPB_108	Private motor vehicle and motorcycle tax (MRB) policy (households)	0.038	0.021	0.023
CPB_109	Motor vehicle and motorcycle tax (MRB) policy (businesses)	0.009	0.005	0.006
CPB_116	Losses unauctioned emission rights	0.000	0.000	0.000
CPB_117	Sustainable Energy Storage (ODE) tax (households)[35]	1.253	1.415	1.390
CPB_118	Sustainable Energy Storage (ODE) tax (businesses)	1.253	1.415	1.390
CPB_119	Expenditure scheme Sustainable Energy Production (SDE(+))	-2.167	-2.508	-1.587
CPB_123	No indexation of reduction in energy tax (households)	0.064	0.178	0.320
CPB_124	No indexation of reduction in energy tax (businesses)	0.016	0.044	0.080
CPB_130	Measures on company-car-related addition to taxable income, Motor Vehicles Memorandum Act (Autobrief II)	0.178	0.178	0.178
Total		0.504	0.608	1.660
+ : balance improvement / increase in financial burden				

[34] See PBL (2019), Assessment of the draft Climate Agreement.
[35] The VAT over the ODE is not considered as climate policy.

CPB grosses up the payments (expenditures, EMU-related financial burden) between government and society that, in PBL's national cost assessment, will cancel each other out. CPB outlines all effects by January 2018. PBL shows the national costs of the policy compared to the NEV 2017. CPB's budgetary and financial burden overview is partial, because it only outlines mutations compared to 2018. The national costs presented by PBL is partial, because it only outlines new proposed policy as of 2018.

Appendix C: Connection differences

This appendix describes the differences in linkages at the level of measures between PBL's analysis and CPB's evaluation. There are three categories of differences. First of all, there are measures that, according to PBL, will have a CO_2 effect, but which are not included in CPB's evaluation. This concerns five measures from the Agriculture and Land-use sector, one measure from the Built Environment sector and two measures from the Industrial sector (Table C.1). In CPB's evaluation of both the draft Climate Agreement and the Cabinet variants,[36] the budgetary, financial burden and income effects of these measures were not included because, according to CPB, they are not unilaterally enforceable by the government and/or have not been worked out in sufficient detail to allow costs to be determined. In the case of the malus scheme in the Industrial sector, for example, there is a great deal of uncertainty about the scheme's design, the circumstances when it will take effect and its practical feasibility. As a result, the reduction potential calculated by PBL, for which CPB provides no indication of the budgetary, financial burden and income effects, may be several megatonnes lower, in total.

In addition, there are 34 measures without an independent CO_2 effect that PBL qualifies as flanking policy for achieving CO_2 reductions but which CPB does not include in its analysis — again because of non-enforceability on the part of the government (Table C.2). Finally, there are measures that involve so-called friction costs, but for which it is not possible to determine the exact budgetary effects on the basis of their impact. For these measures, a provisional estimate has been included for each sector. Provisional estimates have been included for a total of 57 measures (Table C.3).

[36] In PBL's analysis, a proposal with partial coverage from the vehicle registration tax (BPM) was included, to replace the non-assessable Cabinat variant for the Mobility and Transport sector with full BPM coverage. In the absence of the necessary information, CPB's evaluation did not include PBL's proposed variant to this Cabinet variant.

Table C.1 Overview of the measures with a separate CO_2 effect that are not included in CPB's evaluation

Number	Measure
	Agriculture and Land use[1]
dCA_108	Reducing methane emissions via feed measures
dCA_111	Methane oxidation outdoor storage on dairy farms
dCA_112	Seeding of grass clover by dairy farmers
dCA_131	New forest realisation
dCA_134	Realising reforesting, according to the national ecological network (NNN)
	Built Environment
dCA_085	Standardisation energy performance non-residential construction
	Industry[2]
dCA_098	Malus scheme for businesses without approved CO_2 reduction plan
dCA_099	Malus scheme for businesses not complying with the implementation of CO_2 reduction plan

1 In the Cabinet variant for Agriculture and Land Use, these five measures also create differences between CPB and PBL.
2 In the Cabinet variant for Industry (malus scheme of 100 euros per tonne CO_2), these measures also create differences between CPB and PBL.

Note: dCA = draft Climate Agreement

Table C.2 Overview of the measures with a separate CO_2 effect that are not included in CPB's evaluation

Number	Measure
	Built Environment
dCA_055	Obligation to provide information about sustainability in housing appraisals
dCA_061	Promoting participation in Neighbourhood approaches
dCA_067	Guaranteeing housing-cost neutrality for tenants
dCA_068	Agreements national government and Aedes about the Unremunerative Top
dCA_075	Development of benchmarks on energy use
dCA_079	Transparency of residual heat potential in industry
	Industry
dCA_103	Increase in CO_2 prices on a European level
	Mobility and Transport
dCA_171	More stringent EU emission standards for passenger vehicles
dCA_173	Flanking measures to stimulate electric modes of transportation
dCA_178	Agreements about adjusting regulations to promote innovation
dCA_198	Increase in the sustainability of the government's own car fleet
dCA_199	Climate-neutral procurement of civil engineering works
dCA_200	More stringent standards for equipment public procurement
dCA_203	Collaboration between provinces and municipalities in the regional energy strategies
dCA_204	Procurement beneftis for businesses with a sustainable car fleet
dCA_212	Learning process consumer affairs electric passenger vehicles
dCA_213	Facilitation of application procedure battery charging infrastructure
dCA_214	Research into an application for comparing fuel costs
dCA_216	Development of sustainable human resource policy
dCA_219	Study into the barriers for electric transportation modes
dCA_220	Collaboration between car leasing companies and car-sharing platforms
dCA_221	Agreements about cost comparison between electric and conventional-fuel vehicles
dCA_222	Research into the feasibility of leasing second-hand electric vehicles
dCA_224	Inclusion of electrification of car fleet in studies on the use of fiscal measures
dCA_238	Development of implementation plans for the national agenda on battery charging infrastructure
dCA_240	Monitoring the measures of draft Climate Agreement
dCA_242	Implementation of proven sustainable solutions
dCA_243	Knowledge development Top sector logistics
dCA_246	Promotion of new concepts city logistics
dCA_250	Advisory process for passenger and goods transport
dCA_251	Implementation and enforcement of a dynamic standard
dCA_253	Study amendments to the Environmental Management Act
dCA_261	Capacity increase and optimisation of the train timetable
dCA_264	Commitments to participation in the success of MaaS pilot projects

Tabel C.3 Overview of measures that fall under the provisional estimates

Number	Measure
	Electricity
dCA_032	Land decisions, tenders and preliminary studies Offshore Wind
dCA_033	Solutions for ecological bottlenecks of Offshore / Onshore Wind
dCA_034	Monitoring security of supply Tennet electricity
	Built Environment
dCA_037	Promotion of innovation and cost reduction in construction sector
dCA_040	Study on the sustainability of national government buildings
dCA_052	Information provision to residents
dCA_053	Performance requirements for heating systems
dCA_054	Transferability of building-related financing
dCA_062	Decide on a date for the cessation of natural gas extractions
dCA_063	Monitoring and adjusting visions on transition
dCA_064	Energy information desk for building owners
dCA_065	Knowledge and learning programmes for natural-gas-free districts
dCA_070	Expansion of the national energy efficiency fund
dCA_071	More vigorous enforcement of legal obligations in non-residential construction
dCA_072	Clarification of the official list of measures
dCA_073	Adjustment of the methodology for the cost recovery time path
dCA_074	Evaluation and monitoring of the target for social real estate
dCA_076	70% emission reduction in district heating networks
dCA_080	Outline the possibilities for aqua thermal systems
dCA_081	Explore the differentiation in transfer tax
dCA_084	National declaration of intent on labour market and education in the ‘neighbourhood approach’
dCA_087	Development of a standard for housing heat demand
dCA_093	Support for natural-gas-free new housing construction
	Industry
dCA_102	Specify principles market order and involvement of public stakeholders in carbon capture and storage (CCS)
	Mobility and Transport
dCA_150	Drafting a plan to determine the demand for alternative infrastructure for filling and charging stations
dCA_164	Legal CO_2 emission standard for commuter traffic
dCA_169	Regional agreements about sustainable mobility and transport
dCA_170	Explore possibilities for sustainable commercial transport in collective labour agreements (CAOs)
dCA_172	Standardisation of legislation on electric commuter traffic
dCA_174	Regional approach to the promotion of electric driving
dCA_202	Agreements on granting concessions to filling stations
dCA_205	Improved price comparisons between fossil-fuel and electric vehicles
dCA_207	Agreements about limiting the subsidy on the purchase of electric vehicles
dCA_208	Capacity for leading EUproject17

dCA_210	Central campaign electric driving
dCA_211	Central website electric transport
dCA_215	Offer technical training courses for working on electric vehicles
dCA_217	Focus on improving insight into the quality of second-hand electric vehicles
dCA_218	Exploration of the utilisation of second-hand batteries
dCA_223	Study the adjustments to rental rates for privately used shared cars
dCA_226	Make electric shared cars available for use outside office hours
dCA_227	Designated parking spaces for location-bound shared car stands
dCA_235	Enshrine the authorisation for imposing taxes on all passenger vehicles in provincial legislation
dCA_236	Evaluation of incentive measures for the sale of new zero-emission vehicles
dCA_239	Embed car-related fiscal measures in the Motor Vehicles Memorandum Act (*Autobrief III*)
dCA_245	Realisation of preconditions to the implementation of zero-emission zones
dCA_249	National government joining the coation for alternative travel (*Coalitie Anders Reizen*)
dCA_252	Facilitation of legal CO_2 emission standard for commuter traffic
dCA_255	Drafting overview of fiscal options for sustainable commuter traffic
dCA_256	Exploration of tax-free reimbursement of parking fees P&R and bicycle parking facilities
dCA_257	Communication on the possibilities of travel cost schemes for sustainable transportation
dCA_259	Investigate the discount options for travelling on the fringes of rush hour ('schouderspitskorting') and for railway price and demand control
dCA_260	Stagger school hours for busiest rush hour times
dCA_262	Investigate a more efficient utilisation of the existing rail capacity
dCA_263	Research pilot projects self-driving trains
dCA_265	Facilitation of part concepts MaaS pilot projects
dCA_266	Draft standard language and protocols MaaS

Appendix D: Measures

This appendix provides a detailed overview of the evaluated 128 measures in the draft Climate Agreement and 35 measures in the Cabinet variants, as well as their impact on public finances. The amounts are ex ante and relate to deviations from the baseline scenario in Appendix B.

Draft Climate Agreement

Expenditures

On balance, the draft Climate Agreement will increases public spending by 1.2 billion euros in 2021 (Table 3.1). This will increase to 1.6 billion euros in 2025 and 2.2 billion euros in 2030. A list and a table of expenditure measures are provided for each sector.

Electricity

- The draft Climate Agreement proposes a further roll-out of offshore wind energy production. This involves a limited increase in spending, the amount of which will increase between 2020 and 2030. (dCA_019)
- The draft Climate Agreement proposes to develop demo facilities, pilot projects and public–private project plans in the field of hydrogen. It concerns a limited efficient increase in spending, the amount of which will increase between 2019 and 2030. (dCA_020)
- The draft Climate Agreement proposes to earmark funds for pilot projects and demos in the field of storage and conversion of renewable energy. This represents a limited increase in spending, the amount of which will increase between 2019 and 2030. (dCA_021)
- The draft Climate Agreement proposes to efficiently increase spending on setting up pilot projects in the field of spatial integration. This involves a limited increase in spending, the amount of which will increase between 2019 and 2030. (dCA_022)
- The draft Climate Agreement proposes that regional agreements on electricity, green natural gas and heat be made within the framework of the Regional Energy Strategies (RES). This involves a limited increase in spending between 2019 and 2021. (dCA_024)
- The draft Climate Agreement partly covers spending increases in the Electricity sector from a release of funds earmarked for climate policy in the Coalition Agreement of the Rutte III Cabinet. (dCA_026)
- The draft Climate Agreement covers spending increases in the Electricity sector partly from funds from the existing renewable energy budget reserve. (dCA_028)
- The draft Climate Agreement proposes to increase spending on renewable electricity through the SDE+ from 2022 onwards. (dCA_275)
- The draft Climate Agreement contains measures that involve friction costs, but for which the exact budgetary burden cannot be calculated on the basis of their impact. For these measures, a provisional estimate has been included for each sector. For the Electricity sector, this estimate represents a limited increase in spending, the amount of which will increase between 2019 and 2030. (dCA_318)

Table D.1 Electricity: Net spending cuts, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure	2021	2025	2030
dCA_019	Further roll-out of offshore wind energy	-0.010	-0.018	-0.018
dCA_020	Pilot projects and demo facilities for hydrogen within the Electricity sector	-0.015	-0.020	-0.020
dCA_021	Pilot projects and demo facilities for storage and conversion within Electricity sector	-0.010	-0.015	-0.015
dCA_022	Pilot projects and demo facilities for spatial integration within Electricity sector	-0.010	-0.020	-0.020
dCA_024	Agreements regional energy strategies Electricity	-0.010	0.000	0.000
dCA_026	Climate package Electricity	0.055	0.055	0.055
dCA_028	Covered from budget reserve sustainable energy	0.010	0.018	0.018
dCA_275	Spending increases SDE+ for renewable electricity	0.000	-0.123	-0.200
dCA_318	Other spending increases and implementation costs Electricity	-0.003	-0.010	-0.014
Total		0.007	-0.133	-0.214
+ : balance improvement				

Built Environment

- The draft Climate Agreement proposes to encourage natural gas-free neighbourhoods by means of pilot projects. This is an occasional spending increase of 0.1 billion euros in 2020, which will be phased out in the subsequent period. (dCA_035_b)
- The draft Climate Agreement proposes to set up a knowledge centre to support the innovation agenda. This represents a limited increase in spending. (dCA_036)
- The draft Climate Agreement proposes to scale up the application of geothermal energy as implementation of the master plan for geothermal heat. This involves a once-only limited spending increase in 2019. (dCA_038)
- The draft Climate Agreement proposes to allocate a budget to the construction of a heat roundabout in the Province of South Holland. This involves a once-only limited spending increase in 2019. (dCA_039)
- The draft Climate Agreement proposes to allocate a budget to municipalities for the implementation of new tasks related to the draft Climate Agreement. This represents an increase in spending, the amount of which will increase to 0.1 billion euros, from 2021 onwards. (dCA_042)
- The draft Climate Agreement proposes to provide an additional subsidy, in the year 2020 to 2022, for home insulation. This represents a spending increase of 0.1 billion euros, in the years 2020 to 2022. (dCA_043)
- The draft Climate Agreement proposes that half of the budget surplus or deficit that may result from the shift in energy tax in the Built Environment sector, as proposed in the draft Climate Agreement, be charged to the Mobility and Transport sector. This represents a limited spending cut in the Built Environment sector and a limited spending increase in the Mobility and Transport sector. (dCA_047)
- The draft Climate Agreement partly covers spending increases in the Built Environment sector from the release of funds earmarked for climate policy under in the Coalition Agreement of the Rutte III Cabinet. (dCA_048)
- The draft Climate Agreement covers the Energy Investment Allowance made available to landlords from the release of funds from the EIA budget reserve. (dCA_050)
- The draft Climate Agreement proposes to expand lending facilities for owner-occupiers and homeowners associations to finance sustainability measures. The national government will guarantee the fund from which these loans are provided and will make non-revolving credit available. Including private resources, the fund can ultimately grow to 4.5 billion euros. The measure involves an increase in spending, the amount of which will increase by up to 0.1 billion euros by 2030. (dCA_051)
- The draft Climate Agreement proposes to increase the ISDE budget. This represents an increase in spending of 0.1 billion euros. (dCA_056)
- The draft Climate Agreement proposes regional agreements on electricity, green natural gas and heat. This represents a limited spending increase, between 2019 and 2021. (dCA_060)
- The draft Climate Agreement proposes to provide additional subsidies for innovation in order to reduce the costs related to sustainability efforts. This involves a limited increase in spending, the amount of which will increase up to the year 2025, after which the subsidy scheme will be terminated. (dCA_069)
- The draft Climate Agreement proposes a scale-up, after 2022, for making districts natural gas-free. This represents a limited increase in spending, the amount of which will increase up to 2030. (dCA_091)
- The draft Climate Agreement proposes to increase the SDE+ budget from 2019 onwards. This involves an increase in spending, the amount of which will increase by up to 0.1 billion euros in 2030. (dCA_273)
- The draft Climate Agreement includes measures that will involve friction costs, but for which the exact budgetary impact cannot be calculated on the basis of their effects. For these measures, a provisional estimate has been included for each sector. For the Built Environment sector, this represents a limited increase in spending, the amount of which will increase between 2019 and 2030. (dCA_320)

Table D.2 Built Environment: Net spending cuts, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure	2021	2025	2030
dCA_035_b	Natural gas-free districts (pilot projects)	-0.070	0.000	0.000
dCA_036	Installing knowledge centre on integral knowledge and innovation (*kenniscentrum Integrale Kennis en Innovatieagenda*)	-0.025	-0.025	-0.025
dCA_038	Implementation action plan geothermal energy	0.000	0.000	0.000
dCA_039	Construction 'heating roundabout' [*warmterotonde*] South Holland	0.000	0.000	0.000
dCA_042	Expansion package of municipal tasks	-0.050	-0.050	-0.050
dCA_043	Subsidy on insulation for owner-occupied housing	-0.050	0.000	0.000
dCA_047	Transference of half of the budgetary net effect of the energy tax shift towards Mobility and Transport	0.001	-0.004	-0.009
dCA_048	Climate package Built Environment	0.100	0.070	0.070
dCA_050	Covered from budget reserve EIA	0.050	0.000	0.000
dCA_051	Financing fund homeowners and homeowners associations	-0.055	-0.066	-0.080
dCA_056	Increase in budget ISDE	-0.100	-0.100	-0.100
dCA_060	Agreement regional energy stratgies Built Environment	-0.020	0.000	0.000
dCA_069	Subsidy on innovations to make housing more sustainable	-0.005	-0.045	0.000
dCA_091	Natural gas-free districts (scale-up)	0.000	0.000	-0.045
dCA_273	Spending increases SDE+ for renewable heat and green natural gas	0.000	-0.166	-0.135
dCA_320	Other spending increases and implementation costs Built Environment	-0.019	-0.023	-0.022
Total		-0.243	-0.409	-0.396

+ : balance improvement

Industry

- The draft Climate Agreement proposes to set up pilot projects, innovation programmes and demo facilities for hydrogen chains in industry. This involves a limited, efficient increase in spending, the amount of which will increase between 2019 and 2030. (dCA_096)
- The draft Climate Agreement proposes to set up pilot projects to promote sustainability efforts in industry. This will focus on technologies such as electrification, CO_2 capture and storage, circular use of materials and substances and residual heat recovery. This is an efficient increase in spending, the amount of which will increase from 2019 to 2025, after which it will be terminated. (dCA_097)
- The draft Climate Agreement proposes to oblige businesses to draw up an emission reduction plan and take emission-reducing measures from the recognised list of measures if they have a payback period of up to five years. The company-specific plans and the related progress must be monitored by an independent party (RVO.nl). These monitoring activities involve implementation costs, which represents a limited increase in spending, from 2020 onwards (dCA_101_a)
- The draft Climate Agreement partly covers spending increases in the Industrial sector from a release of funds earmarked for climate policy in the Rutte III Coalition Agreement (dCA_106).
- The draft Climate Agreement proposes to increase spending on CO_2 reduction in the Industrial sector through the SDE+, from 2022 onwards.(dCA_276)
- The draft Climate Agreement contains measures that will involve friction costs, but for which the exact budgetary burden cannot be calculated on the basis of their impact. For these measures, a provisional

estimate has been included for each sector. For the Industrial sector, this estimate represents a limited increase in spending, the amount of which will increase, between 2019 and 2030. (dCA_319)

Table D.3 Industry: Net spending cuts, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure	2021	2025	2030
dCA_096	Pilot projects and demo facilities for hydrogen in industry	-0.009	-0.014	-0.019
dCA_097	Pilot projects and demo facilities for sustainable technologies in industry	-0.056	-0.081	-0.076
dCA_101_a	Review costs company-specific CO_2 reduction plans	-0.005	-0.005	-0.005
dCA_106	Climate package Industry	0.070	0.100	0.100
dCA_276	Spending increases SDE+ for CO_2 reductions Industry	0.000	-0.250	-0.550
dCA_319	Other spending increases and implementation costs Industry	-0.004	-0.018	-0.033
Total		-0.004	-0.268	-0.583
+ : balance improvement				

Agriculture and Land use

- The draft Climate Agreement proposes that innovation and the roll-out of precision agriculture be stimulated through pilot projects and subsidies for dairy farming and arable farming. This involves a limited, efficient increase in spending, the amount of which will increase between 2019 and 2030 (dCA_107).
- The draft Climate Agreement proposes that the government and the dairy sector take measures to stimulate the use of low-emission animal housing. This represents a limited, efficient increase in spending, the amount of which will increase from 2019 onwards. (dCA_109)
- The draft Climate Agreement proposes that dairy farms make appropriate choices with respect to reducing farm-related greenhouse gas emissions, on the basis of a mix of measures, including manure fermentation. This measure falls under the extended SDE+ scheme and, therefore, represents an increase in spending that will have no budgetary impact. (dCA_110)
- The draft Climate Agreement proposes that knowledge and innovation in dairy farming should be achieved within the framework of the plan for a climate-responsible dairy sector in the Netherlands (*Klimaatverantwoorde Zuivelsector Nederland*) with respect to 'manure storage and fertilisation' 'livestock and feed', 'crops and soil', 'energy saving and sustainable energy production' and 'animal housing'. This involves a limited, efficient increase in spending, from 2019 onwards (dCA_113).
- The draft Climate Agreement proposes financial support for farmers for the cessation of businesses (restructuring) in the pig farming sector. This represents a limited increase in spending, the amount of which will increase between 2019 and 2020, after which support will be terminated in 2023. (dCA_114)
- The draft Climate Agreement includes the option of taking measures that would encourage the use of low-emission animal housing in pig farming. This concerns a limited efficient increase in spending between 2020 and 2027. (dCA_115)
- The draft Climate Agreement proposes that provinces, municipalities and the pig farming sector explore the bottlenecks in licensing procedures for large-scale low-emission manure processing in regional clusters. The measure is funded from the extended SDE+ scheme and represents an increase in spending with no budgetary impact. (dCA_117)
- The draft Climate Agreement proposes that the agricultural and contract work sector enter into agreements with the government and water boards, in the 2019–2022 period, aimed at achieving greater nitrogen efficiency and reducing the generation of nitrous oxide emissions. Research into the effects of nitrification inhibitors also will be included. This concerns a limited increase in spending (dCA_119).

- The draft Climate Agreement proposes that resources be used for scale-up schemes, research and practical pilot projects for innovation and savings in greenhouse horticulture. This represents a limited efficient increase in spending (dCA_120).
- The draft Climate Agreement proposes to explore more efficient use of residual heat for greenhouses. This concerns a limited efficient increase in spending (dCA_122)
- The draft Climate Agreement proposes that pilot projects are carried out for knowledge development in four designated peat meadow areas. This represents a limited increase in spending (dCA_125).
- The draft Climate Agreement proposes to provide several sources of funding aimed at agricultural soils, to address peat meadow problems. This involves a limited, efficient increase in spending, which will be phased out between 2019 and 2030 (dCA_126).
- The draft Climate Agreement proposes to provide several sources of funding aimed at nature areas (meadow bird areas), to address peat meadows problems. This concerns a limited, efficient increase in spending (dCA_127).
- The draft Climate Agreement proposes to manage existing forests, trees and nature areas in a climate-smart way, for example, through field studies. This concerns a limited, efficient increase in spending that will be phased out between 2019 and 2030 (dCA_128).
- The draft Climate Agreement proposes to further limit deforestation. This measure has no budgetary implications (dCA_129).
- The draft Climate Agreement proposes that cultural landscapes be reinforced with hedgerows. This represents a limited, efficient increase in spending that will be phased out between 2019 and 2030. (dCA_132)
- The draft Climate Agreement proposes that stakeholders (government authorities, site managers, farmers, landowners) take accelerated measures to combat desiccation on peatland, as included in the Nature Pact. This could include the installation of weirs and dams. This concerns a limited spending increase that will be phased out between 2019 and 2030 (dCA_133).
- The draft Climate Agreement proposes that resources be used to reduce food waste. This involves a limited, efficient increase in spending (dCA_139).
- The draft Climate Agreement proposes that, in the 2019–2021 period, funds will be made available to the Dutch National Fund for Green Investments as a guarantee facility. This concerns a limited spending increase that will be phased out between 2019 and 2022 (dCA_143).
- The draft Climate Agreement covers spending increases in the Agriculture and Land-use sector partly through the release of funds earmarked in the Framework agreement on active restructuring of pig farming (dCA_146).
- The draft Climate Agreement covers spending increases in the Agriculture and Land-use sector partly through the release of funds earmarked for climate policy in the Coalition Agreement of the Rutte III Cabinet (dCA_313).
- The draft Climate Agreement proposes to provide funds for research carried out within the Agriculture and Land-use sector. This concerns a limited spending increase, from 2020 onwards.(dCA_314)
- The draft Climate Agreement contains measures that will involve friction costs, but for which the exact budgetary consequences cannot be calculated on the basis of their impact. For these measures, a provisional estimate has been included for each sector. For the Agriculture and Land-use sector, this eatimate represents a limited spending increase that will be phased out between 2019 and 2030 (dCA_321).

Table D.4 Agriculture and land use: Net spending cuts, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure	2021	2025	2030
dCA_107	Stimulate roll-out investments and accellerated roll-out precision agriculture	-0.007	-0.007	-0.007
dCA_109	Stimulate investments in low-emission animal housing systems dairy farming	-0.001	-0.001	-0.001
dCA_110	Mono manure fermentation by dairy farmers	0.000	0.000	0.000
dCA_113	Realisation of knowledge and innovation programmes in the dairy sector	-0.001	-0.001	-0.001
dCA_114	Specify restructuring scheme for pig farms	-0.023	0.000	0.000
dCA_115	Stimulation investments in low-emission animal housing systems in pig farming	-0.010	-0.010	0.000
dCA_117	Pig manure processing and value creation in regional clusters	0.000	0.000	0.000
dCA_119	Research into the effects of nitrification inhibitors in arable farming	-0.001	-0.001	-0.001
dCA_120	Continuation of programme *greenhouse as energy source* ('Kas als Energiebron') for greenhouse horticulture	-0.005	-0.005	-0.005
dCA_122	Application of residual heat in greenhouse horticulture	-0.005	-0.005	-0.005
dCA_125	Pilot projects conducted in peat meadow areas	-0.001	-0.001	-0.001
dCA_126	Financing roll-out measures peat meadows – agriculture	-0.001	-0.001	-0.001
dCA_127	Financing roll-out measures peat meadows – agricultural nature	-0.001	-0.001	-0.001
dCA_128	Research programme on the management of forests, trees and nature	-0.001	-0.001	-0.001
dCA_129	Reduce deforestation to the unavoidable minimum	0.000	0.000	0.000
dCA_132	Additional hedgerows in land scape structures	-0.001	-0.001	-0.001
dCA_133	Implementation of anti-desiccation measures on peatland	-0.001	-0.001	-0.001
dCA_139	Halving food wastage	-0.001	-0.001	-0.001
dCA_143	Dutch National Fund for Green Investments (revolving)	-0.020	0.000	0.000
dCA_146	Package Framework Agreement active restructuring in pig farming	0.028	0.005	0.000
dCA_313	Climate package Agriculture and Land-use sector	0.030	0.030	0.030
dCA_314	Research funding Agriculture and Land-use sector	-0.004	-0.004	-0.004
dCA_321	Other spending increases and implementation costs Agriculture and Land-use sector	-0.004	-0.002	-0.002
Total		-0.030	-0.008	-0.003
+ : balance improvement				

Mobility and Transport

- The draft Climate Agreement proposes to introduce road pricing for heavy goods vehicles, which involves system costs. This represents a limited increase in spending over the 2019–2021 period, and a further increase of 0.1 billion euros from 2022 onwards (dCA_153_c).
- The net government revenues from the heavy goods vehicle tax (revenues minus system costs, excise duty losses, abolition of the Eurovignette and lower private motor vehicle and motorcycle tax for heavy duty vehicles) are fed back into the transport sector. This involves an efficient increase in spending, the amount of which will increase from 0.2 billion euros in 2023 to 0.3 billion euros in 2030 (dCA_153_i).
- The draft Climate Agreement proposes that the national government and various parties together draw up an implementation agenda for the subsectors of urban logistics, to enable zeor-emission transport by 2025 at the latest. This represents a limited, efficient increase in spending, from 2020 onwards (dCA_155).

- The draft Climate Agreement proposes that government authorities and other parties exchange knowledge and experience regarding zero-emission mobile equipment. This involves a limited, efficient increase in spending, from 2020 onwards (dCA_159).
- The draft Climate Agreement proposes that the national government set up a programme to stimulate the number of zero-emission delivery vans, through 40% co-financing of the additional price of these vehicles. The subsidy would be paid out at the time of purchase (ex ante), under a 'when it's gone, it's gone' principle. This represents a limited spending increase, over the 2020–2025 period (dCA_161).
- The draft Climate Agreement proposes that the national government set up a programme to stimulate the number of zero-emission heavy goods vehicles, through 40% co-financing of the additional price of these vehicles. The subsidy would be paid out at the time of purchase (ex ante), under a 'when it's gone, it's gone' principle. This represents a limited spending increase, over the 2020–2025 period (dCA_162).
- The draft Climate Agreement proposes that at least 1000 employers commit to 50% CO_2 reduction in commercial mobility and transport by 2030, compared to 2016 levels. The national government and other parties will make every effort to limit the administrative burden for employers. This involves a limited, efficient increase in spending, from 2020 onwards (dCA_163).
- The draft Climate Agreement proposes that the national government and other parties stimulate sustainable personal mobility and transport by providing information to the public. This represents a limited, efficient increase in spending, from 2020 onwards (dCA_165).
- The draft Climate Agreement proposes that the national government and NS railway services (and possibly other public transport operators) provide a concrete approach to peak rush hours. This involves a limited, efficient increase in spending, from 2020 onwards (dCA_166).
- The draft Climate Agreement proposes that the national government and other parties enter into agreements about communication, education and regulations concerning tyre replacements and tyre pressure. This represents a limited, efficient increase in spending, from 2020 onwards (dCA_167).
- The draft Climate Agreement proposes an acceleration of the process and the establishment of basic preconditions for the roll-out of a public charging infrastructure for electric vehicles. This concerns a limited, efficient increase in spending, over the 2020–2025 period (dCA_175).
- The draft Climate Agreement proposes improvements to the provision of information about the locations and availability of charging stations, charging price transparency, use of open protocols in the charging chain and an open charging market. This represents a limited, efficient increase in spending, over the 2020–2025 period (dCA_176).
- The draft Climate Agreement proposes to investigate how *smart charging* can be designed for a stable power grid in which the use of electric transport is stimulated. This involves a limited, efficient increase in spending, over the 2020–2025 period (dCA_177).
- The draft Climate Agreement proposes to investigate real possibilities of promoting the use of electric transport within the logistics sector. This concerns a limited, efficient increase in spending, over the 2020–2025 period (dCA_179).
- The draft Climate Agreement proposes a subsidy for private citizens on the purchase of zero-emission passenger vehicles. This subsidy will begin at 6,000 euros per vehicle in 2021, after which the amount will decrease to 2,200 euros by 2030. It will be available for new vehicles priced up to 60,000 euros, with a linear decrease in the subsidy amount for purchasing prices from 40,000 to 60,000 euros. This represents a limited investment in 2021, with an increase in spending, the amount of which will increase to up to 0.3 billion euros by 2030 (dCA_185_a).
- The draft Climate Agreement partly covers spending increases in the Mobility and Transport sector from a release of funds earmarked for climate policy under the Rutte III Coalition Agreement (dCA_187).
- The draft Climate Agreement proposes a transfer of funds in the Infrastructure Fund, whereby the budgets that fall under the responsibility of the Ministry of Infrastructure and Water Management will be utilised sooner than previously foreseen, with this fund later being replenished again. Withdrawals from and

payments into the fund will alternate; cumulatively, over the 2020–2030 period, this represents a budget-neutral funds transfer (dCA_196).

- The draft Climate Agreement proposes that the production of advanced sustainable biofuels for transport be stimulated through SDE+. This represents a limited increase in spending, over the 2021–2028 period (dCA_272).
- The draft Climate Agreement proposes that RVO.nl set up a programme to monitor progress of the implementation of the National Agenda on Charging Infrastructure. This involves a limited, efficient increase in spending, over the 2020–2024 period (dCA_277).
- The draft Climate Agreement proposes that half of the budget surplus or deficit that may result from the shift in energy tax in the Built Environment sector, as proposed in the draft Climate Agreement, be charged to the Mobility and Transport sector. This represents a limited increase in spending for the Mobility and Transport sector and a limited spending cut for the Built Environment sector (dCA_315).
- The draft Climate Agreement contains measures that will involve friction costs, but for which the exact budgetary effect cannot be calculated on the basis of their impact. For these measures, a provisional estimate has been included for each sector. For the Mobility and Transport sector, this estimate represents a limited increase in spending, the amount of which will increase between 2019 and 2030 (dCA_317).

Table D.5 Mobility and Transport: Net spending cuts, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure	2021	2025	2030
dCA_153_c	Introduction of heavy goods vehicle tax (system costs)	-0.039	-0.108	-0.107
dCA_153_i	Introduction of heavy goods vehicle tax (feed back via expenditures)	0.000	-0.374	-0.336
dCA_155	Drawing up an implementation agenda for zero-emission city logistics	-0.007	-0.017	-0.010
dCA_159	Exchange of knowledge on zero-emission mobile equipment	-0.008	-0.018	-0.010
dCA_161	Subsidy on the purchase of zero-emission delivery vans	-0.032	-0.014	0.000
dCA_162	Subsidy on the purchase of zero-emission heavy goods vehicles	-0.009	-0.017	0.000
dCA_163	Limit the administrative buden for employers	-0.003	-0.003	-0.003
dCA_165	Public information provision on making passenger mobility and transport more sustainable	-0.002	-0.002	-0.002
dCA_166	Approach to peak rush hours in rail transport	-0.003	-0.003	-0.003
dCA_167	Approach to tyre pressure and replacement	-0.002	-0.002	-0.002
dCA_175	Accelerate basic preconditions for the roll-out of public charging infrastructure	-0.002	-0.001	0.000
dCA_176	Improvement in information provision on charging infrastructure	-0.001	-0.001	0.000
dCA_177	Research into smart charging design	-0.001	-0.001	0.000
dCA_179	Research into the improvement of electric transport in the logistics sector	-0.001	-0.001	0.000
dCA_185_a	Purchasing subsidy on zero-emission vehicles	-0.035	-0.144	-0.288
dCA_187	Package of climate measures Mobility and Transport sector	0.040	0.040	0.040
dCA_196	Transfer of funds Infrastructure Fund	0.003	0.019	0.043
dCA_272	Spending increase SDE+ for biofuels	-0.025	-0.025	0.000
dCA_277	Set-up of monitoring programme National Agenda Charging Infrastructure	-0.001	0.000	0.000
dCA_315	Half budgetary net impact of shift in energy tax	-0.001	0.004	0.009
dCA_317	Other spending increases and implementation costs Mobility and Transport sector	-0.008	-0.035	-0.035
Total		-0.137	-0.703	-0.704

+: balance improvement

Financial burden

The draft Climate Agreement will reduce the public financial burden to a limited extent, by 2021 (Table 3.2). Towards 2025 and 2030, this burden will be increased, on balance, by 0.5 billion euros and 0.6 billion euros, respectively. The limited reduction in 2021 concerns an increase of 0.1 billion euros for households and a reduction of 0.1 billion euros for businesses. The draft Climate Agreement will increase the non-EMU-related financial burden by 0.1 billion euro in 2021 and 1.0 billion euro in 2030. A list of the related measures, per sector, is followed by a table.

Electricity

For the Electricity sector, there are no measures on the EMU-related financial burden.

Non-EMU-related financial burden

- The draft Climate Agreement proposes to include the offshore grid costs for wind parks from the follow-up map on offshore wind energy in the grid tariffs. This will lead to non-EMU-related costs for households that will increase to 0.2 billion euros, between 2020 and 2030 (dCA_031_a).

- The draft Climate Agreement proposes to include the offshore grid costs for wind parks from the follow-up map on offshore wind energy in the grid tariffs. This will lead to non-EMU-related costs for businesses that will increase to 0.4 billion euros, between 2020 and 2030 (dCA_031_b).
- The draft Climate Agreement leads to necessary additional regional onshore power grids, the costs of which will be included in the grid tariffs, assuming that these newly constructed grids are distributed throughout the country. Tariffs will also include the costs of removing natural gas connections. This leads to non-EMU-related costs for households increasing by up to 0.1 billion euros, between 2020 and 2030 (dCA_316_a).
- The draft Climate Agreement leads to necessary additional regional onshore power grids, the costs of which will be included in the grid tariffs, assuming that these newly constructed grids are distributed throughout the country. Tariffs will also include the costs of removing natural gas connections. This leads to non-EMU-related costs for businesses increasing by up to 0.1 billion euros, between 2020 and 2030. (dCA_316_b)

Table D.6 Electricity: mutations in non-EMU-related financial burden, compared to baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (non-EMU-related)	2021	2025	2030
dCA_031_a	Costs of offshore wind energy for households	0.005	0.069	0.189
dCA_031_b	Costs of offshore wind energy for businesses	0.011	0.136	0.376
dCA_316_a	Costs of additional onshore power grids and removal of natural gas connections (households)	0.018	0.055	0.100
dCA_316_b	Costs of additional onshore power grids and removal of natural gas connections (businesses)	0.016	0.049	0.090
Total		0.050	0.309	0.755
+: / increase in financial burden				

Built Environment

- The draft Climate Agreement proposes, from 2020 onwards, to gradually increase the reduction in the energy tax, annually, by a total of 58 euros by 2023. This represents a reduction in the financial burden on households of up to 0.5 billion euros, by 2030 (dCA_044_a).
- The draft Climate Agreement proposes, from 2020 onwards, to gradually increase the reduction in energy tax, annually, by a total of 58 euros by 2023. This represents a reduction in the financial burden on businesses of up to 0.5 billion euros, by 2030 (dCA_044_b).
- The draft Climate Agreement proposes to gradually reduce the energy tax on electricity, annually, from 2024 onwards, by a total of 2.4 euro cents per kWh, by 2029. This represents a reduction in the financial burden on households of up to 0.4 billion euros, by 2030 (dCA_045_a).
- The The draft Climate Agreement proposes to gradually reduce the energy tax on electricity, annually, from 2024 onwards, by a total of 2.4 euro cents per kWh, by 2029. This represents a reduction in the financial burden on businesses of up to 0.1 billion euros, by 2030 (dCA_045_b).
- The draft Climate Agreement proposes to make the EIA available to landlords, between 2019 and 2022. This represents a decrease in the financial burden on businesses of 0.1 billion euros, between 2019 and 2022 (dCA_046).
- The draft Climate Agreement proposes to gradually increase the energy tax on natural gas, annually, from 2020 onwards, by a total of 10 euro cents per m^3, by 2029. This represents an increase in the financial burden on households of up to 0.7 billion euros, by 2030 (dCA_049_a).

- The draft Climate Agreement proposes to gradually increase the energy tax on natural gas, annually, from 2020 onwards, by a total of 10 euro cents per m³, by 2029. This represents an increase in the financial burden on businesses of up to 0.7 billion euros, by 2030 (dCA_049_b)

Non-EMU-related financial burden

- As part of the neighbourhood approach, the draft Climate Agreement proposes to connect a share of non-residential construction to district heating networks. This involves a limited increase in non-EMU-related financial burden on the business community, the amount of which increases up to 2030 (dCA_035_a).

Table D.7 Built Environment: mutations financial burden, compared to baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
dCA_044_a	Increase in energy tax reduction (housholds)	-0.230	-0.440	-0.450
dCA_044_b	Increase in energy tax reduction (businesses)	-0.020	-0.038	-0.039
dCA_045_a	Decrease in energy tax on electrictiy (housholds)	0.000	-0.165	-0.447
dCA_045_b	Decrease in energy tax on electrictiy (businesses)	0.000	-0.047	-0.126
dCA_046	Expansion of EIA to include landlords	-0.050	0.000	0.000
dCA_049_a	Increase in energy tax on natural gas (housholds)	0.170	0.478	0.739
dCA_049_b	Increase in energy tax on natural gas (businesses)	0.078	0.220	0.340
Total		-0.052	0.008	0.017
	Measure (non-EMU-related)			
dCA_035_a	Natural gas-free districts (non-residential construction)	0.035	0.008	0.009
Total		0.035	0.008	0.009
+: increase in financial burden				

Industry

There are no EMU-related financial burden measures for the Industrial sector.

Non-EMU-related financial burden

- The draft Climate Agreement proposes to oblige businesses to take emission-reducing measures from the recognised list of measures if these have a payback period of up to five years. This represents a limited increase in non-EMU-related financial burden on businesses, from 2020 onwards. (dCA_101_b)

Table D.8 Industry: mutations non-EMU-related financial burden, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (non-EMU-related)	2021	2025	2030
dCA_101_b	Implementation costs of CO_2-reducing plans for businesses	0.005	0.005	0.005
Total		0.005	0.005	0.005
+: increase in financial burden				

Agriculture and Land use

There are no EMU-related financial burden measures for the Agriculture and Land-use sector.

Mobility and Transport

- The draft Climate Agreement proposes that the national government introduces road pricing for heavy goods vehicles, from 2023 onwards. In accordance with the policy framework on heavy goods vehicles, the rate will be 15 euro cents per kilometre, on all motorways and on roads for which a substantial amount of diversion traffic can be expected as a result of the pricing system. This will increase the financial burden on businesses by 0.7 billion euros, from 2023 onwards (dCA_153_a).
- The draft Climate Agreement proposes that the national government introduces road pricing for heavy goods vehicles, from 2023 onwards. In accordance with the policy framework on heavy goods vehicles, the rate will be 15 euro cents per kilometre, on all motorways and on roads for which a substantial amount of diversion traffic can be expected as a result of the pricing system. This will increase the financial burden for other countries by 0.1 billion euros, from 2023 onwards (dCA_153_b).
- The introduction of a road pricing system for heavy goods vehicles will lead to excise duty losses. This will reduce tax revenues from businesses, starting with a limited reduction in 2023 by up to 0.1 billion euros by 2030 (dCA_153_d).
- The introduction of a road pricing system for heavy goods vehicles will lead to excise duty losses. This will reduce tax revenues from abroad, to a limited extent, from 2023 onwards (dCA_153_e).
- The introduction of a road pricing system for heavy goods vehicles will lead to the abolition of the Eurovignette. This represents a decrease of 0.2 billion euro in the financial burden on businesses, from 2023 onwards (dCA_153_f).
- The introduction of a road pricing system for heavy goods vehicles will lead to the abolition of the Eurovignette. This represents a limited decrease in the financial burden on other countries, from 2023 onwards (dCA_153_g).
- The introduction of a road pricing system for heavy goods vehicles will be coupled to a reduction in motor vehicle tax (MRB) for these vehicles. For those of more than 12 tonnes maximum permitted mass, the MRB will be reduced by 36%; this is the maximum possible reduction in accordance with EU directives. For heavy goods vehicles of a permitted maximum mass below 12 tonnes, the MRB will be completely phased out. This represents a limited reduction in the financial burden on businesses, from 2023 onwards (dCA_153_h).
- The draft Climate Agreement proposes to exempt zero-emission vehicles from having to pay motor vehicle tax (MRB) until 2025. From 2025 onwards, the MBR rate for zero-emission vehicles will gradually increase, from 25% in 2025 to 45% by 2030. This represents a gradually increasing reduction in the financial burden on households, with limited reduction in 2021 by up to 0.3 billion euros, by 2030 (dCA_180_a).
- The draft Climate Agreement proposes to exempt zero-emission vehicles from having to pay motor vehicle tax (MRB) until 2025. From 2025 onwards, the MBR rate for zero-emission vehicles will gradually

increase, from 25% in 2025 to 45% by 2030. This represents a gradually increasing reduction in the financial burden on businesses, from 0.1 billion euros in 2021 to up to 0.2 billion euros, by 2030 (dCA_180_b).

- The reduced motor vehicle tax (Mrb) for zero-emission vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households in 2021, by up to 0.1 billion euros, by 2030 (dCA_180_c).
- The reduction in motor vehicle tax (Mrb) for zero-emission vehicles also impacts other vehicle-related taxes. This represents a reduction in the financial burden on businesses of 0.1 billion euros, from 2021 onwards (dCA_180_d).
- The draft Climate Agreement proposes to exempt zero-emission vehicles from having to pay vehicle registration tax (BPM) until 2025. From 2025 onwards, a fixed rate of 350 euros will apply to zero-emission vehicles. This represents a limited reduction in the financial burden on households, over the 2021–2024 period (dCA_181_a).
- The draft Climate Agreement proposes to exempt zero-emission vehicles from having to pay vehicle registration tax (BPM) until 2025. From 2025 onwards, a fixed rate of 350 euros will apply to zero-emission vehicles. This represents a limited reduction in the financial burden on businesses, over the 2021–2024 period (dCA_181_b).
- The BPM exemption and fixed rate for zero-emission vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households, between 2021 and 2024 (dCA_181_c).
- The BPM exemption and fixed rate for zero-emission vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on businesses, between 2021 and 2024 (dCA_181_d).
- The draft Climate Agreement proposes that, from 2021 onwards, zero-emission company vehicles pay a reduced addition to taxable income, over a maximum of 50,000 euros of the list price. The addition to taxable income will increase from 8% in 2021 to 20% by 2030. There will be no maximum amount for hydrogen and solar vehicles until 2025. This represents a reduction in the financial burden that increases from a limited reduction in 2021 to up to 0.2 billion euros by 2025 and subsequently decreases again, down to a limited reduction by 2030 (dCA_182_a).
- The reduced company-car-related addition to taxable income for zero-emission vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households in 2021, increasing to up to 0.1 billion euros by 2025 and subsequently decreases again, down to a limited reduction by 2030 (dCA_182_b).
- The purchase subsidy on privately owned zero-emission vehicles also impact other vehicle-related taxes. This represents a limited reduction in the financial burden on households in 2021, increasing up to 0.2 billion euros by 2030 (dCA_185_b).
- The draft Climate Agreement proposes to increase the basic MBR rate for fossil-fuel vehicles. Compared to 2020, the MRB rate will increase by an average of 6 euros in 2021, increasing to up to 126 euros by 2030. This represents an increasing financial burden on households, starting with a limited increase in 2021 to up to 1.0 billion euros by 2030 (dCA_188_a).
- The draft Climate Agreement proposes to increase the basic MBR rate for fossil-fuel vehicles. Compared to 2020, the MRB rate will increase by an average of 6 euros in 2021, increasing to up to 126 euros by 2030. This represents an increasing financial burden on businesses, starting with a limited increase in 2021 to up to 0.1 billion euros by 2030 (dCA_188_b).
- The increase in motor vehicle tax (MRB) for fossil-fuel vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households in 2021, by up to 0.5 billion euros by 2030 (dCA_188_c).
- The increase in motor vehicle tax (MRB) for fossil-fuel vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on businesses (dCA_188_d).

- The draft Climate Agreement proposes to introduce an annual innovation surtax of 25 euros on vehicle ownership (regardless of fuel type), from 2021 onwards. This will increase the financial burden on households by 0.2 billion euros, from 2021 onwards (dCA_189_a).
- The draft Climate Agreement proposes to introduce an annual innovation surtax of 25 euros on vehicle ownership (regardless of fuel type), from 2021 onwards. This will increase the financial burden on businesses by 0.2 billion euros, from 2021 onwards (dCA_189_b).
- The innovation surtax on vehicle ownership also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households in 2021, increasing up to 0.1 billion euros by 2030 (dCA_189_c).
- The innovation surtax on vehicle ownership also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on businesses (dCA_189_d).
- The draft Climate Agreement proposes to introduce an innovation surtax on the purchase of zero-emission vehicles. The tariffs will start at 87.50 euros in 2021 and increase linearly to 350 euros by 2024, after which it will remain constant. This is an increase in the financial burden on households, with a limited increase in 2021 increasing to up to 0.1 billion euros by 2024, after which it will decline again, down to a limited increase by 2030 (dCA_190_a).
- The draft Climate Agreement proposes to introduce an innovation surtax on the purchase of zero-emission vehicles. The tariffs will start at 87.50 euros in 2021 with a linear increase to 350 euros by 2024, after which they will remain constant. This represents a limited increase in the financial burden on businesses. (dCA_190_b)
- The innovation surtax on the purchase of non zero-emission vehicles also impact other vehicle-related taxes. This represents a limited reduction in the financial burden on households (dCA_190_c).
- The innovation surtax on the purchase of non zero-emission vehicles also impact other vehicle-related taxes. This represents a limited reduction in the financial burden on businesses (dCA_190_d).
- The draft Climate Agreement proposes an annual increase of 24 euros in motor vehicle tax (MRB) for delivery vans, between 2021 and 2024. In 2025, the rate will be reduced by 24 euros, after which it will be kept at a constant level. This represents a limited increase in the financial burden on households, from 2021 onwards (dCA_192_a).
- The draft Climate Agreement proposes an annual increase of 24 euros in motor vehicle tax (MRB) for delivery vans, between 2021 and 2024. In 2025, the rate will be reduced by 24 euros, after which it will be kept at a constant level. This represents a limited increase in the financial burden on businesses, which will be only limited in 2021 and increase to up to 0.1 billion euros, by 2030 (dCA_192_b).
- The draft Climate Agreement proposes an increase of 1 euro cent in the excise duty on petrol and diesel per litre, from 2021 onwards. In 2023, the excise duty on diesel will be further increased by another 1 euro cent per litre. This will increase the financial burden on households by 0.1 billion euros, from 2021 onwards (dCA_193_a).
- The draft Climate Agreement proposes an increase of 1 euro cent in the excise duty on petrol and diesel per litre, from 2021 onwards. In 2023, the excise duty on diesel will be further increased by another 1 euro cent per litre. This will increase the financial burden on businesses by 0.2 billion euros, from 2021 onwards (dCA_193_b).
- The increase in excise duty on petrol and diesel also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households (dCA_193_c).
- The increase in excise duty on petrol and diesel also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on businesses (dCA_193_d).
- The draft Climate Agreement covers reductions in the financial burden in the Mobility and Transport sector partly from the release of funds in the package of measures in the Motor Vehicles Memorandum Act (Autobrief II) (dCA_194).

Non-EMU-related financial burden

- The draft Climate Agreement proposes to introduce the obligation to also use 27 PJ in renewable fuel in road transport, next to the application of electricity and hydrogen, in addition to the 2030 scenario of the National Energy Outlook (NEV) 2017. This obligation will be formalised in the Environmental Management Act. This represents an increase in non-EMU-related financial burden on businesses, with a limited increase in 2020, and increasing to 0.3 billion euros, by 2030 (dCA_151).
- The draft Climate Agreement proposes that government authorities take the initiative to include the use of zero-emission mobile equipment and the principles of the Green Deal 'Het Nieuwe Draaien' (i.e. *the new way of running equipment*) in procurement processes of, for example, construction work and landscaping. The use of zero-emission mobile equipment will become compulsory, by 2026 at the latest. This represents a limited non-EMU-related financial burden on businesses, from 2026 onwards (dCA_152).
- The draft Climate Agreement proposes that, by 2025, medium-sized zero-emission zones for goods transport be established in 35 cities. Should these zero-emission zones not be established by 2026 via local implementation agendas, the national government will implement them by decree, by 2030 at the latest. This represents a limited non-EMU-related financial burden on businesses, by 2030 (dCA_158)

Table D.9 Mobility and Transport: mutations to the financial burden, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
dCA_153_a	Introduction heavy goods vehicle tax (financial burden on businesses)	0.000	0.666	0.661
dCA_153_b	Introduction heavy goods vehicle tax (financial burden abroad)	0.000	0.082	0.082
dCA_153_d	Introduction heavy goods vehicle tax (loss of excise duty businesses)	0.000	-0.035	-0.061
dCA_153_e	Introduction heavy goods vehicle tax (loss of excise duty abroad)	0.000	-0.004	-0.008
dCA_153_f	Introduction heavy goods vehicle tax (abolition Eurovignette businesses)	0.000	-0.173	-0.176
dCA_153_g	Introduction heavy goods vehicle tax (abolition Eurovignette abroad)	0.000	-0.021	-0.022
dCA_153_h	Introduction heavy goods vehicle tax (feedback reduction MRB heavy goods vehicles)	0.000	-0.034	-0.034
dCA_180_a	Redcued MRB tariff zero-emission vehicles (households)	-0.027	-0.087	-0.271
dCA_180_b	Redcued MRB tariff zero-emission vehicles (businesses)	-0.111	-0.165	-0.179
dCA_180_c	Impact redcued MRB tariff zero-emission vehicles on other taxes (households)	-0.021	-0.051	-0.149
dCA_180_d	Impact redcued MRB tariff zero-emission vehicles on other taxes (businesses)	-0.087	-0.097	-0.098
dCA_181_a	Tax exemption and fixed rate vehicle registration tax for zero-emission vehicles (households)	0.000	0.000	0.000
dCA_181_b	Tax exemption and fixed rate vehicle registration tax for zero-emission vehicles (businesses)	-0.003	0.000	0.000
dCA_181_c	Impact of tax exemption and fixed rate vehicle registration tax for zero-emission vehicles on other taxes (households)	0.000	0.000	0.000
dCA_181_d	Impact of tax exemption and fixed rate vehicle registration tax for zero-emission vehicles on other taxes (businesses)	0.000	0.000	0.000
dCA_182_a	Lower tax liability for the private use of zero emission company vehicles (households)	-0.046	-0.223	-0.015
dCA_182_b	Impact of lower tax liability for the private use of zero emission company vehicles (households)	-0.037	-0.133	-0.016
dCA_185_b	Impact of subsidy on the purchase of zero-emission vehicles on other taxes (households)	-0.028	-0.084	-0.158
dCA_188_a	Increase in private motor vehicle and motorcycle tax (MRB) for fossil-fuel vehicles (households)	0.047	0.679	0.954
dCA_188_b	Increase in private motor vehicle and motorcycle tax (MRB) for fossil-fuel vehicles (businesses)	0.005	0.061	0.064

dCA_188_c	Impact of increase in private motor vehicle and motorcycle tax (MRB) for fossil-fuel vehicles on other taxes (households)	-0.037	-0.400	-0.530
dCA_188_d	Impact of increase in private motor vehicle and motorcycle tax (MRB) for fossil-fuel vehicles on other taxes (businesses)	-0.004	-0.036	-0.035
dCA_189_a	Innovation surtax on vehicle ownership (households)	0.188	0.196	0.204
dCA_189_b	Innovation surtax on vehicle ownership (businesses)	0.025	0.026	0.027
dCA_189_c	Impact of innovation surtax on vehicle ownership on other taxes (households)	-0.017	-0.044	-0.068
dCA_189_d	Impact of innovation surtax on vehicle ownership on other taxes (businesses)	-0.002	-0.006	-0.009
dCA_190_a	Innovation surtax on the purchase of non zero-emission passenger vehicles (households)	0.017	0.055	0.022
dCA_190_b	Innovation surtax on the purchase of non zero-emission passenger vehicles (businesses)	0.015	0.037	0.028
dCA_190_c	Impact of innovation surtax on the purchase of non zero-emission passenger vehicles on other taxes (households)	-0.013	-0.032	-0.012
dCA_190_d	Impact of innovation surtax on the purchase of non zero-emission passenger vehicles on other taxes (businesses)	-0.011	-0.021	-0.016
dCA_192_a	Increase in private motor vehicle and motorcycle tax (MRB) delivery vans (households)	0.002	0.006	0.006
dCA_192_b	Increase in private motor vehicle and motorcycle tax (MRB) delivery vans (businesses)	0.017	0.052	0.053
dCA_193_a	Increase in excise duty on diesel and petrol (households)	0.064	0.079	0.063
dCA_193_b	Increase in excise duty on diesel and petrol (businesses)	0.056	0.098	0.081
dCA_193_c	Impact of increase in excise duty on diesel and petrol on other taxes (households)	-0.045	-0.029	-0.015
dCA_193_d	Impact of increase in excise duty on diesel and petrol on other taxes (businesses)	-0.039	-0.035	-0.018
dCA_194	Release of funds Motor Vehicles Memorandum Act (Autobrief) (cover entry)	0.117	0.182	0.182
Total		0.025	0.509	0.537
	Measure (non-EMU-related)			
dCA_151	Obligation for the additional application of renewable fuels in road transport	0.049	0.147	0.270
dCA_152	Include ZE-equipment in procurement processes	0.000	0.000	0.000
dCA_158	Zero-emission zones in 35 cities	0.000	0.000	0.000
Total		0.049	0.147	0.270
+: increase in financial burden				

Cabinet variants

Below, a detailed overview of the evaluation of 35 measures from the Cabinet variants is provided, including their impact on public finances. The amounts are ex ante and relate to deviations from the baseline scenario of Appendix B.

Cabinet variant Built Environment

- The Cabinet variant proposes that half of the budget surplus or deficit that may result from the shift in energy tax as proposed in the Cabinet variant for the Built Environment sector be charged to the Mobility and Transport sector. This represents a limited spending cut for the Built Environment sector (V_GO_6).
- The Cabinet variant proposes that half of the budget surplus or deficit that results from the shift in energy tax as proposed in the Cabinet variant for the Built Environment sector be charged to the Mobility and

Transport sector. This represents a limited increase in spending for the Mobility and Transport sector (V_GO_7).

- The Cabinet variant includes measures that involve friction costs, but for which the exact budgetary burden cannot be calculated on the basis of their impact. For these measures, a provisional estimate has been included for each sector. For the Built Environment sector, this estimate represents a limited increase in spending (V_GO_8).

Table D.10 Cabinet variant Built Environment: mutations to expenditures, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
V_GO_6	Halve the budgetary net effect of the energy tax shift to Mobility and Transport	0.009	-0.016	-0.014
V_GO_7	Halve the budgetary net effect of the energy tax shift	-0.009	0.016	0.014
V_GO_8	Other spending increases and implementation costs, Built Environment variant	-0.016	-0.023	-0.022
Total		-0.016	-0.023	-0.022
+: balance improvement				

- The Cabinet variant proposes to increase the reduction in energy tax by 65 euros in 2020, after which the increase will be reduced to 58 euros in 2029. This represents a reduction in the financial burden on households of 0.5 billion euros (V_GO_002_a).
- The Cabinet variant proposes to increase the reduction in energy tax by 65 euros in 2020, after which the increase will be reduced to 58 euros in 2029. This represents a reduction in the financial burden on businesses. (V_GO_002_b)
- The Cabinet variant proposes to gradually reduce the energy tax on electricity, from 2021 onwards, by a total of 2.3 euro cents per kWh by 2028. This represents a reduction in the financial burden on households, which will increase to 0.4 billion euros by 2030 (V_GO_003_a).
- The Cabinet variant proposes to gradually reduce the energy tax on electricity, from 2021 onwards, by a total of 2.3 euro cents per kWh by 2028. This represents a reduction in the financial burden on businesses, which will increase to up to 0.1 billion euros by 2030 (V_GO_003_b).
- The Cabinet variant proposes an increase of 4 euro cents per m^3 in the energy tax on natural gas in 2020, followed by an annual increase of up to a total of 10 euro cents per m^3 by 2026. This represents an increase in the financial burden on households, which will increase to up to 0.7 billion euros by 2030 (V_GO_004_a).
- The Cabinet variant proposes an increase of 4 euro cents per m^3 in the energy tax on natural gas in 2020, followed by an annual increase of up to a total of 10 euro cents per m^3 by 2026. This represents an increase in the financial burden on businesses, which will increase to up to 0.3 billion euros by 2030 (V_GO_004_b).

Table D.11 Cabinet variant Built Environment: mutations financial burden, compared to baseline scenario (ex ante, billion euros, 2018 price level 2018)

Number	Measure (EMU-related)	2021	2025	2030
V_GO_002_a	Increase in energy tax reduction (households)	-0.468	-0.470	-0.450
V_GO_002_b	Increase in energy tax reduction (businesses)	-0.041	-0.041	-0.039
V_GO_003_a	Decrease in energy tax on electricity (households)	-0.099	-0.382	-0.413
V_GO_003_b	Decrease in energy tax on electricity (businesses)	-0.028	-0.108	-0.117
V_GO_004_a	Increase in energy tax on natural gas (households)	0.423	0.708	0.717
V_GO_004_b	Increase in energy tax on natural gas (businesses)	0.194	0.325	0.330
Total		-0.019	0.032	0.028
+ : increase in financial burden				

Cabinet variant Agriculture and Land use

- The Cabinet variant proposes that resources be used for scale-up schemes, research and practical pilot projects for innovation and savings in greenhouse horticulture. This represents a limited efficient increase in spending (V_LL_001).
- The Cabinet variant proposes to develop a more efficient use of residual heat in greenhouses. This concerns a limited efficient increase in spending (V_LL_003).
- The Cabinet variant proposes that resources be used to reduce food waste. This involves a limited, efficient increase in spending (V_LL_006).
- The Cabinet variant proposes that innovation and the roll-out of precision agriculture be stimulated by setting up pilot projects and subsidies for dairy farming and arable farming. This involves a limited, efficient increase in spending, the amount of which will increase between 2019 and 2030 (V_LL_010).
- The Cabinet variant proposes that parties take measures to encourage the use of low-emission animal housing. This concerns a limited efficient increase in spending (V_LL_012).
- The Cabinet variant proposes that dairy farmers make appropriate choices with respect to the reduction of farm-related greenhouse gas emissions, on the basis of a mix of measures, including manure fermentation. This measure falls under the extended SDE+ scheme and, therefore, represents an increase in spending that will have no budgetary impact (V_LL_013).
- The Cabinet variant proposes that knowledge and innovation in dairy farming be stimulated within the framework of the plan for a climate-responsible dairy sector in the Netherlands (*Klimaatverantwoorde Zuivelsector Nederland*). This involves a limited, efficient increase in spending (V_LL_016).
- The Cabinet variant proposes that pilot projects are carried out for knowledge development in four designated peat meadow areas. This concerns an expiring limited spending increase (V_LL_017).
- The Cabinet variant proposes to provide several sources of funding aimed at agricultural soils, to address peat meadow problems. This involves a limited, efficient increase in spending, which will be phased out between 2019 and 2030 (V_LL_018).
- The Cabinet variant proposes to provide several sources of funding aimed at nature areas (meadow bird areas), to address peat meadow problems. This concerns a limited, efficient increase in spending (V_LL_019).
- The Cabinet variant proposes to manage existing forests, trees and nature areas in a climate-smart way, for example, through field studies. This concerns a limited, efficient increase in spending that will be phased out between 2019 and 2030 (V_LL_020).

- The Cabinet variant proposes to further limit deforestation. This measure has no budgetary implications (V_LL_021).
- The Cabinet variant proposes that cultural landscapes be reinforced with hedgerows. This represents a limited, efficient increase in spending that will be phased out between 2019 and 2030 (V_LL_024).
- The Cabinet variant proposes that stakeholders (government authorities, site managers, farmers, landowners) make a joint effort to combine objectives, such as biodiversity and spatial quality, with enhanced CO_2 sequestration, in the management of nature, landscapes and public spaces. This involves a limited increase in spending (V_LL_025).
- The Cabinet variant proposes that provinces, municipalities and the pig farming sector explore the bottlenecks in licensing procedures for large-scale low-emission manure processing in regional clusters. The measure is funded from the extended SDE+ scheme and represents an increase in spending with no budgetary impact (V_LL_47).
- The Cabinet variant proposes that funds be made available for research within the Agriculture and Land-use sector. This will involve a limited increase in spending, from 2020 onwards (V_LL_53).
- The Cabinet variant contains measures that will involve friction costs, but for which the exact budgetary consequences cannot be calculated on the basis of their impact. For these measures, a provisional estimate has been included for each sector. For the Agriculture and Land-use sector, this estimate represents a limited spending increase (V_LL_58).

Table D.12 Cabinet variant Agriculture and Land use: mutations expenditures, compared to the baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
V_LL_001	Continuation of programme *Greenhouse as a source of energy* in greenhouse horticulture	-0.013	-0.013	-0.013
V_LL_003	Application of residual heat in greenhouse horticulture	-0.012	-0.012	-0.012
V_LL_006	Halving food wastage	-0.003	-0.003	-0.003
V_LL_010	Stimulate investments in and accelerated roll-out of precision agriculture	-0.009	-0.009	-0.009
V_LL_012	Stimulate investments in low-emission animal housing dairy farming	-0.001	-0.001	-0.001
V_LL_013	mono manure fermentation by dairy farmers	0.000	0.000	0.000
V_LL_016	Realising knowledge and innovation programmes in the dairy sector	-0.001	-0.001	-0.001
V_LL_017	Carrying out pilot projects in peat meadow areas	-0.005	-0.005	-0.005
V_LL_018	Financiing the roll-out of measures in peat meadows - agriculture	-0.006	-0.006	-0.006
V_LL_019	Financiing the roll-out of measures in peat meadows - agricultural nature	-0.001	-0.001	-0.001
V_LL_020	Research programme for the management of forests, trees and nature	-0.006	-0.006	-0.006
V_LL_021	Restricting deforestation	0.000	0.000	0.000
V_LL_024	Additional hedgerows in landscape structures	-0.001	-0.001	-0.001
V_LL_025	Implementation of anti-desiccation measures in peat areas	-0.006	-0.006	-0.006
V_LL_47	Processing and value creation for pig manure in regional clusters	0.000	0.000	0.000
V_LL_53	Research funding Agriculture and Land-use sector	-0.006	-0.006	-0.006
V_LL_58	Other increases in spending and implementation costs in the Agriculture and Land-use variant	-0.006	-0.004	-0.004
Total		-0.076	-0.074	-0.074
+: balance improvement				

Cabinet variant Mobility and Transport: air travel tax

- The Cabinet variant for the Mobility and Transport sector will increase air travel tax (excluding freight and passenger transfers) to 15 euros per ticket, from 2021 onwards. This is an increase of 0.1 billion euros in the financial burden on households, from 2021 onwards (V_MOB_002_a).
- The Cabinet variant for the Mobility and Transport sector will increase air travel tax (excluding freight and passenger transfers) to 15 euros per ticket, from 2021 onwards. This is an increase of 0.1 billion euros in the financial burden on businesses, from 2021 onwards (V_MOB_002_b).
- The Cabinet variant for the Mobility and Transport sector will increase air travel tax (excluding freight and passenger tranfers) to 15 euros per ticket, from 2021 onwards. This represents an increase of 0.1 billion euros in the financial burden on other countries, from 2021 onwards (V_MOB_002_c).

Table D.13 Cabinet variant Mobility and Transport: mutations financial burden, compared to baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
V_MOB_002_a	Increase in air travel tax (households)	0.052	0.059	0.068
V_MOB_002_b	Increase in air travel tax (businesses)	0.052	0.059	0.068
V_MOB_002_c	Increase in air travel tax (other countries)	0.105	0.119	0.136
Total		0.209	0.237	0.272

+: increase in financial burden

Cabinet variant Mobility and Transport: generic purchase subsidy

- The Cabinet variant contains measures that will involve friction costs, but for which the exact non-EMU-related budgetary consequences cannot be calculated on the basis of their impact. For these measures, a provisional estimate has been included for each sector. For the Mobility and Transport sector, this estimate represents a limited spending increase in 2021, which will increase to up to 0.1 billion euros, by 2030 (V_SUB_002).
- The Cabinet variant for the Mobility and Transport sector introduces a generic purchase subsidy on zero-emission vehicles (for both privately owned and commercial vehicles). The generic purchase subsidy will start at about 8,500 euros per vehicle in 2021 and decreases to about 3,300 euros in 2030. The purchase subsidy is available for new vehicles of up to 60,000 euros, with a linear decrease in subsidy for vehicle list prices from 40,000 to 60,000 euros. It is expected that, in the first years, mainly the business segment will be applying for the subsidy, with a shift towards the private segment in later years. This represents an increase in spending, the amount of which will increase from 0.3 billion euros in 2021 to 0.9 billion euros in 2030 (V_SUB_001_a).

Table D.14 Cabinet variant Mobility and Transport generic purchase subsidy: mutations expenditure, compared to baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
V_SUB_002	Other spending increases and implementation costs variant purchasing subsidy on zero-emission vehicles	-0.022	-0.068	-0.066
V_SUB_001_a	Generic purchasing subsidy on zero-emission vehicles	-0.313	-0.802	-0.897
Total		-0.335	-0.870	-0.963

+ : balance improvement

- The generic subsidy on the purchase of zero-emission vehicles also impacts other vehicle-related taxes. This represents a limited reduction in the financial burden on households in 2021, increasing to up to 0.1 billion euros by 2030 (V_SUB_001_b).
- The generic subsidy on the purchase of zero-emission vehicles also impacts other vehicle-related taxes. This represents a reduction in the financial burden on businesses, increasing from 0.1 billion euros in 2023 to 0.2 billion euros by 2030 (V_SUB_001_c).

Table D.15 Cabinet variant Mobility and Transport generic purchase subsidy: mutations financial burden, compared to baseline scenario (ex ante, billion euros, 2018 price level)

Number	Measure (EMU-related)	2021	2025	2030
V_SUB_001_b	Delayed impact of generic purchase subsidy on zero-emission vehicles on other taxes (households)	-0.004	-0.038	-0.109
V_SUB_001_c	Delayed impact of generic purchase subsidy on zero-emission vehicles on other taxes (businesses)	-0.100	-0.147	-0.170
Total		-0.104	-0.185	-0.279
+ : increase in financial burden				

Glossary

BPM	vehicle registration tax
CBS	Statistics Netherlands
CCS	carbon capture and storage
CO_2	carbon dioxide
CPB	CPB Netherlands Bureau for Economic Policy Analysis
dCA	draft Climate Agreement
ECN	Energy research Centre of the Netherlands
EIA	energy-saving investment credit
EMU	Economic and Monetary Union of the European Union
ETS	Emissions Trading System
EU	European Union
GDP	gross domestic product
ISDE	sustainable energy investment subsidy
kWh	kilowatt hour
MaaS	mobility as a service
MRB	private motor vehicle and motorcycle tax
NEV	National Energy Outlook (by PBL)
NS	Dutch national rail services
NMW	national minimum wage
ODE	sustainable energy storage tax
PBL	PBL Netherlands Environmental Assessment Agency
PJ	petajoule
RES	regional energy strategy
RVO.nl	Netherlands Enterprise Agency
RA+	Coalition Agreement Rutte III Cabinet, including subsequenly adopted policy
SDE+	stimulation of sustainable energy production
SDE++	stimulation of sustainable energy transition
VAT	value-added tax, a system of taxation on goods and services
VvE	Dutch homeowners association
WLO	Welfare, Prosperity and the Human Environment
ZE	zero-emission