



Dutch State Treasury Agency  
*Ministry of Finance*

# State of the Netherlands

## Green bond report

27 May 2022



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# 1. Introduction



It is my privilege to present to you the allocation and impact report for the Dutch State Treasury Agency's (DSTA's) Green Bond issuance in 2021. The DSTA issued in 2021 € 1.7 billion of its Green Dutch State Loan (DSL) 15 January 2040 (the 'Green DSL 2040') through a tap auction in February 2021. With this issuance, the Green DSL 2040 exceeds the target of a minimum volume of issuance of € 10 billion, this commitment was made in the Green Bond Framework (GBF).<sup>1</sup>

In 2022 the DSTA has updated its Green Bond Framework to ensure that future issuances or re-openings of a Green Bond are in line with best market practices.<sup>2</sup> It is important to note that this update is not yet relevant for this current allocation and impact report. The updated Green Bond Framework indicates the alignment of the different Eligible Green Expenditures with the EU Taxonomy Climate Delegated Act (the 'EU Taxonomy') as well as the proposed EU Green Bond Standard on a best effort basis.<sup>3</sup> Information on the alignment of these expenditures can be found in the Second Party Opinion provided by Sustainalytics B.V. (Sustainalytics).<sup>4</sup> In next year's allocation and impact report the new Green Bond Framework will obviously be taken into account.

Overall, we have maintained the structure of our previous reports. The DSTA remains devoted to improve its reporting, where possible. I would therefore like to extend an invitation to investors to provide feedback on this report.



**Martin Heerma**  
Acting Director DSTA  
Dutch State Treasury Agency

<sup>1</sup> DSTA – Green Bond Framework, 8 April 2019, available at <https://english.dsta.nl/subjects/green-bonds/documents/publication/2019/04/08/green-bond-framework>

<sup>2</sup> DSTA – Green Bond Framework update, 10 May 2022, available at <https://english.dsta.nl/subjects/green-bonds/documents/publication/2022/05/10/green-bond-framework>

<sup>3</sup> European Commission – *EU Taxonomy Climate Delegated Act (June, 2021)*, 4 June 2021, available at [https://eur-lex.europa.eu/resource.html?uri=cellar:d84ec73c-c773-11eb-a925-01aa75ed71a1.0021.02/DOC\\_2&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:d84ec73c-c773-11eb-a925-01aa75ed71a1.0021.02/DOC_2&format=PDF); European Commission – *Proposal for a Regulation on European green bonds (July 2021)*, 6 July 2021, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0391>

<sup>4</sup> Sustainalytics – State of the Netherlands Green Bond Second Party Opinion, 26 April 2022, available at <https://www.dsta.nl/documenten/publicaties/2022/05/10/state-of-the-netherlands-green-bond-framework-second-party-opinion>

# 2. Allocation Report



The Green Bond issued by the State of the Netherlands intends to exclusively finance or refinance, in whole or in part, expenditures which are part of the Central Government Budget and contribute to the EU Environmental Objectives of Climate Change Mitigation and Climate Change Adaptation ('Eligible Green Expenditures'). In the GBF four categories of Eligible Green Expenditures are indicated that can be used for the allocation of Green Bond proceeds: renewable energy, energy efficiency, clean transportation and climate change adaptation & sustainable water management. Specific articles of the Central Government Budget have been identified in the GBF that meet the criteria of the Eligible Green Expenditures.

An interdepartmental Green Bond Working Group consisting of representatives from the DSTA, the Ministry of Finance, the Ministry of Economic Affairs and Climate, the Ministry of Infrastructure and Water Management and the Ministry of the Interior, is responsible for the allocation of the green bond proceeds to budget items. This Working Group evaluates a list of potential Eligible Green Expenditures proposed by the DSTA. The Working Group reviews the feasibility of including the expenditures, verifies whether the expenditures comply with the criteria and definition of Eligible Green Expenditures as formulated in the Green Bond Framework and approves the final selection of Eligible Green Expenditures.

With the tap issuance of € 1.715 billion on 23 February 2021, the outstanding volume of the Green DSL 2040 currently is € 10.708 billion. According to the Green Bond Framework, up to 50% of the proceeds may be allocated to Eligible Green Expenditures in the financial year preceding the issuance of the green bond. At least 50% of the proceeds will be allocated to expenditures in the year of issuance or future years. As € 684 million of Eligible Green Expenditures of 2020 remained unallocated after last year's Green Bond Report (all remaining eligible consisting of Clean Transportation expenditure are corrected with 92,9% electrified railway),<sup>5</sup> this amount is now allocated to the proceeds of the 2021 re-opening of the Green DSL 2040. The remainder of this re-opening, € 1,031 million, is allocated in table 2.3 to Eligible Green Expenditures for 2021.

The 2021 Eligible Green Expenditures for the categories Renewable Energy and Climate Change Adaptation and Sustainable Water Management have been allocated pro rata for the allocation of green proceeds. The 2021 Eligible Green Expenditure for the category Energy Efficiency has been fully allocated. The 2021 Eligible Green Expenditure for the category Clean Transportation has been allocated pro rata taking into account the percentage electrified railway (92,9%).








The remainder of the Eligible Green Expenditures 2021 will be available for future issuances or re-openings of the green bond.

The tables 2.1 until 2.4 below provide an overview of the allocation tables for the issuance and re-opening of the Green DSL 2040 in 2019 and 2020 and an overview of the allocation of the proceeds of the Green Bond from 2018 until 2021.

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<sup>5</sup> DSTA – State of the Netherlands Green Bond Report 2020, 21 May 2021, available at <https://english.dsta.nl/news/publications/green-bonds>

Table 2.1: Allocation expenditures 2018 & 2019

Annual expenditures category (x € 1 mln)		Allocation table expenditures financed with the green bond							
		2018				2019 I			
Category	Description	Total expenses (in million €)	Expenses allocated to green bond (in million €)	Percentage of allocation	Type green expenditure	Total expenses (in million €)	Expenses allocated to green bond (in million €)	Percentage of allocation	Type green expenditure
 <b>Renewable Energy</b>	Stimulation of Sustainable Energy Production (SDE)	528	528	100%	Subsidy	495	495	100,0%	Subsidy
	Offshore wind energy	364	364	100%		348	348	100,0%	
	Onshore wind energy	151	151	100%		134	134	100,0%	
	Solar energy	13	13	100%		13	13	100,0%	
  <b>Energy Efficiency</b>	Energy savings in the rental housing sector	106	106	100%	Subsidy	134	134	100,0%	Subsidy
  <b>Clean Transportation</b>	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	2016	1485	74%	73,8% operational expenditures* and 26,2% direct investment	1.870	1.500	80,2%	76,7% operational expenditures* and 23,3% direct investment
	Management, maintenance and replacement	1514	1115	74%		1.458	1.170	80,2%	
	Construction	399	294	74%		302	242	80,2%	
	Integrated contract forms/PPC	142	104	74%		144	116	80,2%	
	Interest and redemptions	10	7	74%		10	8	80,2%	
	Receipts	-49	-36	74%		-44	-35	80,2%	
	  <b>Climate Change Adaptation &amp; Sustainable Water Management</b>	Delta Fund	873	873		100%	59,0% operational expenditures and 41,0% direct investment	863	
Flood risk management Investments	307	307	100%	304	304	100,0%			
Freshwater supply investments	11	11	100%	0	0	100,0%			
Management, maintenance and replacement	208	208	100%	195	195	100,0%			
Experimentation	20	20	100%	21	21	100,0%			
Network related costs and other expenditures	308	308	100%	316	316	100,0%			
Water quality investments	20	20	100%	28	28	100,0%			
<b>Total expenditures</b>		<b>3.523</b>	<b>2.992</b>			<b>3.362</b>	<b>2.993</b>		

\* The expenses for maintenance, management and replacement of railway infrastructure are distributed by the Ministry of Infrastructure and Water Management as a subsidy to ProRail.

\*\* Due to rounding in the table above it could occur that the sum of the categories is slightly different than the total.

\*\*\* Only the allocated amount of clean transportation over 2020 are eligible expenses over 2020 since the rest of the expenses have already been allocated in 2020.



Table 2.2: Allocation expenditures 2019 II & 2020 I















Annual expenditures category (x € 1 mln)		Allocation table expenditures financed with the green bond							
		2019 II				2020 I			
Category	Description	Total expenses (in million €)	Expenses allocated to green bond (in million €)	Percentage of allocation	Type green expenditure	Total expenses (in million €)	Expenses allocated to green bond (in million €)	Percentage of allocation	Type green expenditure
 <b>Renewable Energy</b>	Stimulation of Sustainable Energy Production (SDE)	495	0	0,0%	Subsidy	520	520	100,0%	Subsidy
	Offshore wind energy	348	0	0,0%		364	364	100,0%	
	Onshore wind energy	134	0	0%		144	144	100,0%	
	Solar energy	13	0	0%		13	13	100,0%	
  <b>Energy Efficiency</b>	Energy savings in the rental housing sector	134	0	0%	Subsidy	102	46	45,0%	Subsidy
  <b>Clean Transportation</b>	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	1870	336	18%	76,7% operational expenditures* and 23,3% direct investment	1.958	1.222	62,4%	74,8% operational expenditures* and 25,2% direct investment
	Management, maintenance and replacement	1458	262	18%		1.506	940	62,4%	
	Construction	302	54	18%		357	223	62,4%	
	Integrated contract forms/PPC	144	26	18%		155	97	62,4%	
	Interest and redemptions	10	2	18%		10	6	62,4%	
	Receipts	-44	-8	18%		-70	-44	62,4%	
  <b>Climate Change Adaptation &amp; Sustainable Water Management</b>	Delta Fund	863	0	0%	59,2% operational expenditures and 40,8% direct investment	884	884	100,0%	54,9% operational expenditures and 45,1% direct investment
	Flood risk management Investments	304	0	0%		258	258	100,0%	
	Freshwater supply investments	0	0	0%		14	14	100,0%	
	Management, maintenance and replacement	195	0	0%		144	144	100,0%	
	Experimentation	21	0	0%		74	74	100,0%	
	Network related costs and other expenditures	316	0	0%		341	341	100,0%	
	Water quality investments	28	0	0%		52	52	100,0%	
<b>Total expenditures</b>		<b>3.362</b>	<b>336</b>			<b>3.464</b>	<b>2.672</b>		










Table 2.3: Allocation expenditures 2020 II & 2021

Annual expenditures category (x € 1 mln)		Allocation table expenditures financed with the green bond								
		2020 II					2021			
Category	Description	Total expenses (in million €)	Total expenses (in million €)	Expenses allocated to green bond (in million €)	Percentage of allocation	Type green expenditure	Total expenses (in million €)	Expenses allocated to green bond (in million €)	Percentage of allocation	Type green expenditure
 <b>Renewable Energy</b>	Stimulation of Sustainable Energy Production (SDE)	0	520	0	0,0%	Subsidy	551	161	29,2%	Subsidy
	Offshore wind energy	0	364	0	0,0%		381	111	29,2%	
	Onshore wind energy	0	144	0	0,0%		158	46	29,2%	
	Solar energy	0	13	0	0,0%		12	4	29,2%	
  <b>Energy Efficiency</b>	Energy savings in the rental housing sector	0	102	0	0,0%	Subsidy	18,2	18,2	100,0%	Subsidy
  <b>Clean Transportation</b>	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	400	1.958	684	34,9%	74,8% operational expenditures* and 25,2% direct investment	2.104	571	27,1%	74,5% operational expenditures* and 25,5% direct investment
	Management, maintenance and replacement	304	1.506	526	0		1.596	433	27,1%	
	Construction	80	357	125	34,9%		356	97	27,1%	
	Integrated contract forms/PPC	32	155	54	34,9%		190	52	27,1%	
	Interest and redemptions	2	10	3	34,9%		0	0		
	Receipts	-18	-70	-24	34,9%		-38	-10	27,1%	
  <b>Climate Change Adaptation &amp; Sustainable Water Management</b>	Delta Fund	0	884	0	0,0%	54,9% operational expenditures and 45,1% direct investment	961	281	29,2%	60,0% operational expenditures and 40,0% direct investment
	Flood risk management Investments	0	258	0	0,0%		254	74	29,2%	
	Freshwater supply investments	0	14	0	0,0%		35	10	29,2%	
	Management, maintenance and replacement	0	144	0	0,0%		229	67	29,2%	
	Experimentation	0	74	0	0,0%		51	15	29,2%	
	Network related costs and other expenditures	0	341	0	0,0%		348	102	29,2%	
	Water quality investments	0	52	0	0,0%		44	13	29,2%	
<b>Total expenditures</b>		<b>400</b>	<b>3.464</b>	<b>684</b>			<b>3.634</b>	<b>1.031</b>		

Since the STEP subsidy scheme is almost fully assigned, it will not be included in the updated Green Bond Framework. No proceeds of future issuances or re-openings of the Green Bond will be allocated to the Energy Performance Incentive Scheme for the Rental Sector.

Table 2.4: Total allocated Green Bond Expenditures 2018 until 2021

Annual expenditures category (x € 1 mln)		2018 - 2021	
Category	Description	Total expenses allocated to Green Bond 2018 - 2021 (in million €)	Percentage of total expenses
<b>Renewable Energy</b> 	Stimulation of Sustainable Energy Production (SDE)	1.704	15,9%
	Offshore wind energy	1.187	11,1%
	Onshore wind energy	475	4,4%
	Solar energy	42	0,4%
<b>Energy Efficiency</b>  	Energy savings in the rental housing sector	304	2,8%
<b>Clean Transportation</b>  	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	5.798	54,1%
	Management, maintenance and replacement	4.447	41,5%
	Construction	1.034	9,7%
	Integrated contract forms/PPC	449	4,2%
	Interest and redemptions	27	0,3%
	Receipts	-158	-1,5%
<b>Climate Change Adaptation &amp; Sustainable Water Management</b>  	Delta Fund	2.901	27,1%
	Flood risk management Investments	943	8,8%
	Freshwater supply investments	35	0,3%
	Management, maintenance and replacement	613	5,7%
	Experimentation	130	1,2%
	Network related costs and other expenditures	1.067	10,0%
Water quality investments	113	1,1%	
<b>Total expenditures</b>		<b>10.708</b>	<b>100,0%</b>

## I. Renewable Energy

To stimulate renewable energy generation the State of the Netherlands has introduced several successive subsidy schemes over the last few years, including the Stimulation Sustainable Energy Production and Climate Transition (SDE, *Stimulerend Duurzame Energie Productie en klimaattransitie*). SDE expenditures relate to a series of techniques for the generation of renewable energy. The proceeds of green bonds are only allocated to SDE expenditures in the areas of onshore wind energy, offshore wind energy, and solar energy.

The SDE scheme compensates additional costs incurred by a producer in the generation of renewable electricity (and biogas) for a period of 12 to 15 years. The SDE scheme is therefore a subsidy focused on operational expenditures (OPEX) that compensates the unprofitable part of renewable electricity generation in order to encourage the development of these kinds of projects. The annual subsidy amount decreases as the electricity price increases (after all, it is more profitable to generate renewable electricity when electricity prices are higher). The subsidy scheme applies to renewable energy projects which are currently operational, and have been granted for a period of 12 to 15 years. As a result, project developers and investors have greater certainty about the profitability of the project, enabling them to operate their energy generation plant in a responsible manner.

When the SDE scheme was introduced, it was one of the most important instruments through which the State encouraged the energy transition.

## II. Energy Efficiency

In July 2014, the 'Energy Performance Incentive Scheme for the Rental Sector' (STEP, *Stimuleringsregeling energieprestatie huursector*) was introduced to promote energy conservation in (social) rental homes. This grant scheme had a budget of € 400 million, of which € 5 million was reserved for implementation expenses and € 395 for the scheme itself. The STEP-scheme provided social housing providers and private landlords subsidies to improve the energy efficiency of existing homes through energy conservation measures (such as floor insulation, high-efficiency glazing and more efficient heating systems). The subsidy amount was dependent on the improvement in the energy label.

Eligible parties could apply for this subsidy until 31 December 2018. The government of the Netherlands has allocated subsidies for 119,182 dwellings. These subsidies were disbursed two

years after they had been granted, based on the actual improvement in the energy performance of the selected houses. In 2018, payout of the subsidies commenced and a total of € 105.8 million was spent on the renovation of 29,500 homes. In the two following years, another € 134.3 million (2019) and € 101.7 million (2020) has been granted to renovate 45,000 and 38,000 rental homes respectively. In 2021, no new projects have been granted a subsidy, but projects on the waiting list were granted € 18.2 million – which was employed to renovate another 6,610 houses.

### III. Clean Transportation

All eligible expenditures on railway infrastructure for 2019 and 2020, which have not yet been allocated with the funds raised in 2019 and 2020, are included. The tables 2.1 until 2.4 are adjusted with the receipts on the items used to finance the selected expenditure of the items outside the green bond. The tables 2.1 until 2.4 provide an overview of how the funds have been allocated to the relevant Eligible Green Expenditures in the Clean Transportation category. A further explanation of the nature of the expenditures is also given for each category of expenditures.

The percentage allocation is the percentage of the proceeds of the green bond that is allocated to a category of expenditures in relation to the total Eligible Green Expenditures in this category. For all categories other than rail infrastructure, all eligible expenditures from 2019 and 2020 has been selected.

The railroads in the Netherlands facilitate safe, sustainable, cost- and area efficient transport of passengers. In 2021 the total travel volume by train was 8.63 billion kilometers<sup>7</sup>. This volume is 54.3% lower than the pre-covid level of 2019. The largest rail transporter in the Netherlands – de Nederlandse Spoorwegen – uses 100% green energy and 92,9% of the railroad is electrified. Only 92,9% of Eligible Green Expenditures in the Clean Transportation category will be allocated in order to ensure that only electrified railway activity will be financed. Furthermore, railroad manager ProRail focuses on minimizing the carbon footprint during maintenance and construction, for instance by constructing energy efficient stations (see case study Station Delft Campus on page 23).

<sup>7</sup> NS – ‘Duurzame prestaties’ uit Jaarverslag 2021. Available at <https://www.nsjaarverslag.nl/jaarverslag-2021/activiteiten-en-prestaties-in-nederland/duurzame-prestaties/duurzame-prestaties>

ProRail is commissioned by the Ministry of Infrastructure and Water Management. Through the management concession, ProRail receives a subsidy from the Infrastructure Fund of the Ministry for the management, maintenance and replacement of the track. ProRail also receives resources from the Infrastructure Fund for the construction of government infrastructure projects by ProRail on the railways. Expenditure specifically intended for freight traffic have not been taken into account in the allocation of the green bond.

### IV. Climate Change Adaptation and Sustainable Water Management

After three remarkably warm years, 2021 was a normal year in terms of average temperature in the Netherlands. However, there were significant outliers. The number of warnings for extreme weather events stood at the highest level since 2010.<sup>8</sup>

From 13 to 15 July, a persistent and virtually immobile low pressure area led to prolonged extreme precipitation in Austria, Belgium, Germany and Switzerland. Areas along the Maas river and its tributaries in Belgium, Germany, France, Luxembourg and South Limburg in the Netherlands suffered from enormous flooding and severe material damage. More than 100 millimeters of rain fell in several places in three days. Climate change has increased the likelihood of such heavy rainfall.

In their ‘Climate signal ‘21’, the Royal Netherlands Meteorological Institute (KNMI, *Koninklijk Nederlands Meteorologisch Instituut*) identifies climate risks based on the Intergovernmental Panel on Climate Change (IPCC)-report from August 2021 and their own research.<sup>9</sup> The risks include drought, flooding, extreme weather patterns and enlarged risks for urbanized areas. The KNMI report and the flooding in South Limburg reveal the importance of climate change adaptation, in addition to climate change mitigation. Since 2010, the Netherlands has been working on common goals in the Delta Programme<sup>10</sup> with various public authorities and organizations. The expenditures in this category from the Delta Fund ensure that flood

<sup>8</sup> KNMI – Jaaroverzicht 2021, 31 December 2021, available at <https://www.knmi.nl/over-het-knmi/nieuws/gemiddeld-normaal-2021-met-recordaantal-codes-oranje-en-rood>

<sup>9</sup> KNMI – Klimaatsignaal ‘21, 25 October 2021, available at <https://www.knmi.nl/kennis-en-datacentrum/achtergrond/knmi-klimaatsignaal-21>

<sup>10</sup> <https://dp2022.deltaprogramma.nl/>

protection, freshwater supplies and spatial planning are climate-proof and that flood risk management is guaranteed. For example, the identified weak links in flood protection are systematically addressed and improved up to the threat level that is foreseen for 2050. Cooperation with local authorities and suppliers has been sought to reduce associated CO<sub>2</sub> emissions. The Ministry of Infrastructure and Water Management has the ambition to work fully climate neutral and circular by 2030 at the latest. This implies a 100% CO<sub>2</sub> reduction, high-quality reuse of all materials and halving the use of primary raw materials. The Ministry demonstrates efforts to reduce its CO<sub>2</sub> emission and prevent the negative influence in administering infrastructure projects. For example, ProRail and Rijkswaterstaat request that rail and water projects are climate neutral and circular<sup>11</sup>.

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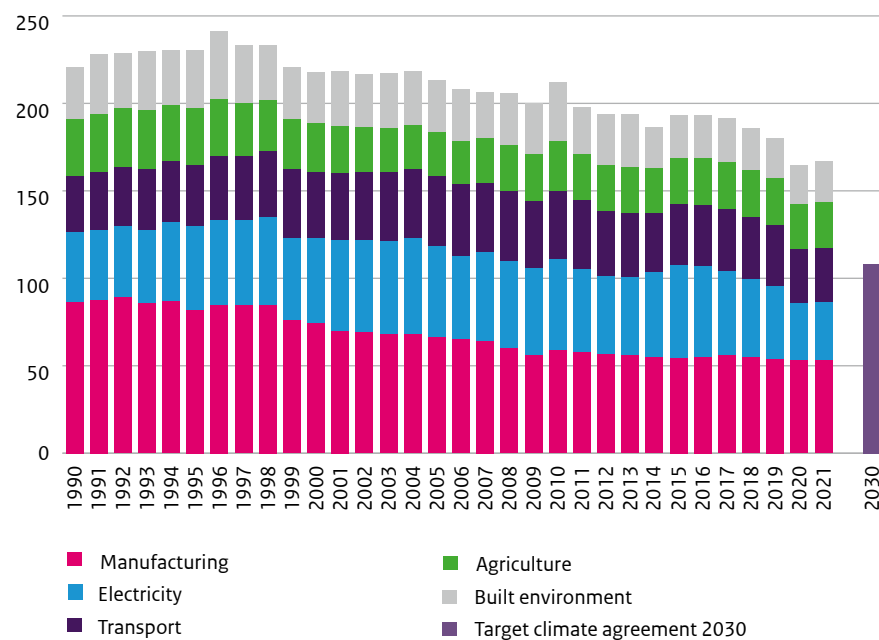
<sup>11</sup> <https://www.rijksoverheid.nl/documenten/kamerstukken/2020/06/15/strategie-naar-klimaatneutrale-en-circulaire-rijksinfraprojecten>

# 3. Impact Report



In this chapter the impact metrics that apply to the Netherlands and are related to climate change are introduced. Then, where feasible and available, specific impact results are presented in relation to green expenditures. The emphasis is on the projections of avoided carbon emissions for each expenditure category.

Graph 3.1 Greenhouse gas emissions in the Netherlands in Mton CO<sub>2</sub> equivalents



Graph 3.1 shows that greenhouse gas emissions in the Netherlands in 2021 were 2.1% higher than in 2020, mainly due to the economic revival after the COVID-19 crisis and the increased use of gas for heating because of the cold winter. Emissions in 2021 were 23.9% lower than in 1990. The objective in the national Climate Act is to reduce greenhouse gas emissions by 49% by 2030 in comparison to 1990.<sup>12</sup> The 2021 – 2025 Coalition Agreement ‘Looking out for each other, looking ahead to the future’ (the ‘Coalition Agreement’) raises this target to at least 55%,

<sup>12</sup> Climate Act ‘Klimaatwet’, as entered into force as of 1 January 2020, available at: <https://wetten.overheid.nl/BWBR00q239q/2020-01-01>

in line with the goal set out in the European Green Deal. The Climate Act will be updated accordingly in July 2022. In the built environment the rise of emissions was the largest, mainly because the winter of 2021 was substantially colder than the same period in 2020. The emissions of the electricity sector were 2% higher than in 2020, mostly because of lower coal prices.

Electricity generation from renewable sources increased, but unfortunately not enough to compensate the higher use of coal, an energy source with relatively high emissions.

In the agricultural sector emissions increased slightly as well, with 2% compared to 2020, also due to lower temperatures. Emissions from transport and manufacturing were comparable to 2020.

In 2019 the Supreme Court ruled in the case of the Urgenda Foundation against the State of the Netherlands that greenhouse gas emissions in the Netherlands must be reduced by 25% compared to 1990 levels by the end of 2020.<sup>13</sup> In 2020 this emissions target was met, as emissions were 25.5% lower than in 1990.<sup>14</sup> In 2021, emissions were only 23.9% lower than in 1990.<sup>15</sup> The government continues to make every effort to achieve this 25% goal and the subsequent targets set in the Coalition Agreement.

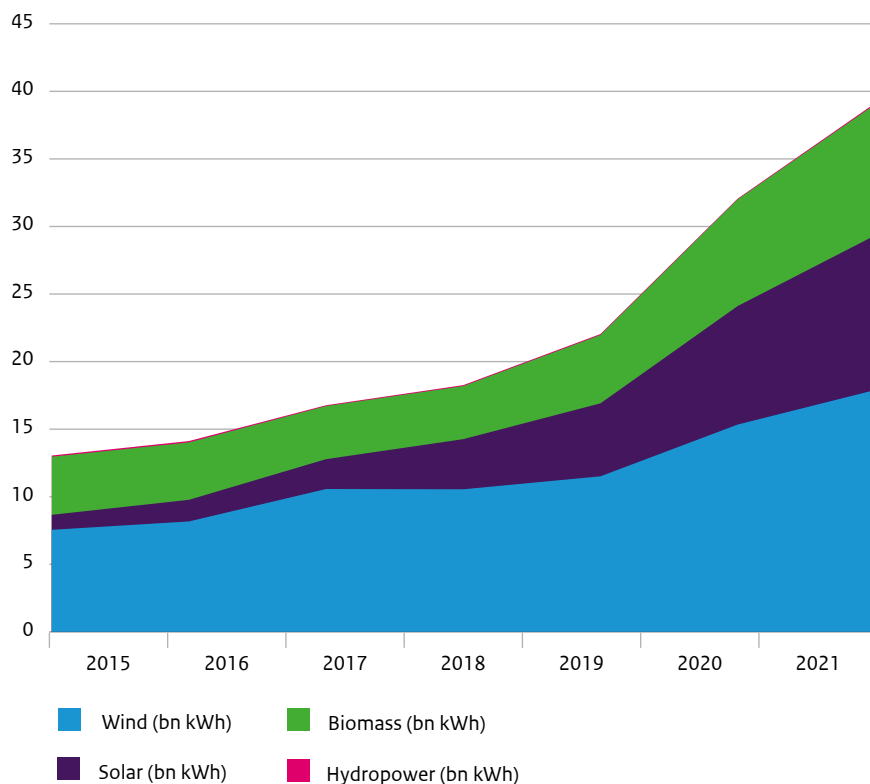
Graph 3.2 shows that the production of renewable electricity in 2021 amounted to 33% of the total electricity consumption in the Netherlands, or 39.1 billion kilowatt-hours (kWh), 22% more than in 2020. The production of solar panels increased with 30% compared to 2020 (from 8.0 to 11.4 bn. kWh). The use of biomass for electricity production was 32% higher in 2021 than in 2020 (from 7.9 to 9.7 bn. kWh). Wind energy production increased by 17% (from 13.9 to 17.9 bn. kWh). The rise in electricity production from renewable sources corresponds largely with the rise in capacity for the production of electricity from sunlight (from 11.0 GW in 2020 to 14.3 GW in 2021) and wind (from 6.6 GW in 2020 to 7.8 GW in 2021). While wind energy production increased the least, it represents the largest share in the production of renewable electricity in the Netherlands.

<sup>13</sup> The Supreme Court – Dutch State to reduce greenhouse gas emissions by 25% by the end of 2020, 20 December 2019 available at <https://www.hogeraad.nl/actueel/nieuwsoverzicht/2019/december/dutch-state-case-reduce-greenhouse-gas-emissions/>

<sup>14</sup> Statistics Netherlands – Urgenda target emission greenhouse gasses in 2020 was met, 9 February 2022, available at <https://www.cbs.nl/nl-nl/nieuws/2022/06/urgenda-doel-uitstoot-broeikasgassen-in-2020-gehaald>

<sup>15</sup> Statistics Netherlands – Emission greenhouse gasses 2.1 percent higher in 2021, 16 March 2022, available at <https://www.cbs.nl/nl-nl/nieuws/2022/11/uitstoot-broeikasgassen-2-1-procent-hoger-in-2021>

Graph 3.2 Production of renewable electricity



### National objectives in a European context

Also due to the developments in the geopolitical situation the current expectation is that by 2030, gas-fired power plants in the Netherlands will contribute more to energy production than what was previously anticipated. These power plants should replace less efficient (coal-fired) power stations abroad. In the Netherlands, this results in more carbon emissions than previously projected, but in Europe, this reduces carbon emissions. For the national target this is a setback of more than 5 Mtons, however in the wider context this has a positive impact on the climate. This example shows the tension between national targets and the fact that the realisation of targets are partly dependent on factors that cannot be influenced by national policies. This is particularly true for internationally operating sectors, such as the electricity sector.

### Impact of the Green Bond of the State of the Netherlands

The tables 3.1 until 3.4 shows an overview of the impact of green bonds issued in relation to eligible expenditures from 2018 until 2021. The avoided CO<sub>2</sub> always relates to the joint impact of all the expenditures and investments of all actors for the underlying projects, with the exception of Clean Transportation, where the avoided CO<sub>2</sub> is calculated on the part which was financed by the Green Bond. The funds raised by the green bond in 2021 have also financed the remaining part of Clean Transportation expenditure over 2020. The impact of 2018 until 2021 is presented in the tables below 3.1 until 3.4.



Table 3.1: Impact allocation 2018 and 2019 I








		Impact table expenditures financed with the green bond					
		2018			2019 I		
Category	Category description	Impact metric avoided CO <sub>2</sub>	Result indicators	Impact metric other	Impact metric avoided CO <sub>2</sub>	Result indicators	Impact metric other
 <b>Renewable Energy</b>	Stimulation of Sustainable Energy Production (SDE)	3.13 Mton	10,113 projects 1,734 MW subsidized production capacity	19.11 PJ production of renewable energy 5,308 mln kWh	3.22 Mton	10,088 projects 1,730 MW subsidised production capacity	19.63 PJ production of renewable energy 5,462 mln kWh
  <b>Energy Efficiency</b>	Energy savings in the rental housing sector	0.05 Mton	29,463 rental housing units 117,853 label steps	Annual energy saving: 0.82 PJ 228 GWh	0.08 Mton	45,289 rental housing units 181,156 label steps	Annual energy saving: 1,268 PJ 352 GWh
  <b>Clean Transportation</b>	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	0.18 Mton	2 realised railway projects 7,097 km railway track maintained investments in 47 projects	21 billion rail passenger km in 2018	0.18 Mton	3 realised railway projects 7,114 km railway track maintained investments in 47 projects	Number of rail passenger km in 2019 is not yet available and will be published in the next impact report.
  <b>Climate Change Adaptation &amp; Sustainable Water Management</b>	Delta Fund: <ul style="list-style-type: none"> <li>• Flood risk management investments</li> <li>• Freshwater supply investments</li> <li>• Management, maintenance, and replacement</li> <li>• Experimentation</li> <li>• Network related costs and other expenditures</li> <li>• Water quality investments</li> </ul>		In 2018 107 kilometer dyke was safe in view of the new standards. This is 12 % of all dykes. The target is 100% safe dykes in 2050. In 2018 24 engineering structures meet the new standards. This is 5 % of all engineering structures. The target is 100% safe engineering structures in 2050.	In 2050 the probability of individual mortality as a result of flooding should not exceed 1:100,000 per annum. This goal has been translated into new standards for dykes and engineering structures. The availability of storm surge barriers was 40% in 2018. The target is 100% availability.		In 2019 129 km kilometer dyke was safe in view of the new standards. This is 14 % of all dykes. The target is 100% safe dykes in 2050. In 2018 24 engineering structures meet the new standards. This is 5 % of all engineering structures. The target is 100 % safe engineering structures in 2050.	In 2050 the probability of individual mortality as a result of flooding should not exceed 1:100,000 per annum. This goal has been translated into new standards for dykes and engineering structures. The availability of storm suge barriers in 2019 was 83% in 2019. The target is 100% availability.

Table 3.2 : Impact allocation 2019 II and 2020 I








		Impact table expenditures financed with the green bond					
		2019 II			2020 I		
Category	Category description	Impact metric avoided CO <sub>2</sub>	Result indicators	Impact metric other	Impact metric avoided CO <sub>2</sub>	Result indicators	Impact metric other
 <b>Renewable Energy</b>	Stimulation of Sustainable Energy Production (SDE)				2.77 Mton	9,830 projects 1,730 MW subsidised power	20.32 PJ sustainable production 5,645 million kWh
  <b>Energy Efficiency</b>	Energy savings in the rental housing sector				0.05 Mton	37,820 rented homes 109,485 energy label steps	Annual energy savings: 0.766 PJ 213 GWh
  <b>Clean Transportation</b>	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	0.02 Mton	3 realised railway projects 7,114 km track maintained invested in 47 projects	21.7 billion rail passenger kilometres in 2019	0.08 Mton	3 realised railway projects 7,129 km track maintained invested in 46 projects	9.8 billion rail passenger kilometres in 2020
  <b>Climate Change Adaptation &amp; Sustainable Water Management</b>	Delta Fund: <ul style="list-style-type: none"> <li>• Flood risk management investments</li> <li>• Freshwater supply investments</li> <li>• Management, maintenance, and replacement</li> <li>• Experimentation</li> <li>• Network related costs and other expenditures</li> <li>• Water quality investments</li> </ul>					In 2020, 130 kilometres of safe dykes will be based on the new standards. This is 14% of all dykes. The aim is 100% safe dykes by 2050. In 2020, 24 flood defences meet the new standards. This is 5% of all flood defences. The aim is 100% safe flood defences by 2050. Major efforts are being undertaken to strengthen dykes and engineering structures and to ensure water safety in the Netherlands. In the Delta Programme Water Safety, there are 27 projects in the exploratory phase, 21 projects in the plan elaboration phase and 14 projects in the implementation phase. Moreover, 6 measures are being executed. By 2025, this will lead to 379 km of safe dykes and 209 safe engineering structures.	The aim is to reduce the risk of death to 1:100,000 a year by 2050. The standards for dykes and flood defences have been adapted accordingly. Availability of storm-surge barriers was 83% in 2020. The target is 100%.

Table 3.3 : Impact allocation 2020 II and 2021













		Impact table expenditures financed with the green bond					
		2020 II			2021		
Category	Category description	Impact metric avoided CO <sub>2</sub>	Result indicators	Impact metric other	Impact metric avoided CO <sub>2</sub>	Result indicators	Impact metric other
 <b>Renewable Energy</b>	Stimulation of Sustainable Energy Production (SDE)				1.80 Mton	9.783 projects; 1.730 MW subsidized power	15,38 PJ sustainable production; 4,274 million kWh
  <b>Energy Efficiency</b>	Energy savings in the rental housing sector				0.01 Mton	6,610 renovated homes 21,152 energy label steps	Annual energy savings: 0,148 PJ 41 GWh
  <b>Clean Transportation</b>	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	0.10 Mton	3 realised railway projects 7,129 km track maintained invested in 46 projects	9.8 billion rail passenger kilometres in 2020.	0.04 Mton	1 developed railwayproject 7.053 km maintained railway invested in 46 projects	8.630 bln. passengerkilometers on the railways in 2021.
  <b>Climate Change Adaptation &amp; Sustainable Water Management</b>	Delta Fund: <ul style="list-style-type: none"> <li>• Flood risk management investments</li> <li>• Freshwater supply investments</li> <li>• Management, maintenance, and replacement</li> <li>• Experimentation</li> <li>• Network related costs and other expenditures</li> <li>• Water quality investments</li> </ul>					In 2021 there is 157 kilometers of safe dykes, based on the newest norms. This is 10,5 % of all dykes to be improved. The target is 100 % safe dykes in 2050.  In 2021 32 flood defence works meet the new standards. This is 8,4 % of all works identified to be improved. The target is 100 % safe flood defence works in 2050.	The target value is a mortality risk of 1:100.000 per year, in 2050.  The standards for dykes and weirs have been adjusted accordingly. The availability of storm surge barriers in 2021 was 83 %.  The target value is 100 %.

Table 3.4: Total Impact avoided CO2 emission 2018 until 2021

Impact table expenditures financed with the green bond		
		Total 2018-2021
Category	Category description	Impact metric avoided CO2 2018 until 2021
<b>Renewable Energy</b> 	Stimulation of Sustainable Energy Production (SDE)	10.92 Mton
<b>Energy Efficiency</b>  	Energy savings in the rental housing sector	0.19 Mton
<b>Clean Transportation</b>  	Maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail	0.60 Mton

## I. Renewable Energy

The generated renewable energy of projects financed with the SDE scheme is measured on the basis of actual electricity meter readings and can therefore be determined with a relatively high level of accuracy. The conversion of generated energy to avoided carbon emissions is based on figures provided by Statistics Netherlands<sup>16</sup>. The granted subsidy was recognised on the basis of realised cash expenditures.

Over time the number of relevant projects decreases, as no new SDE subsidy decisions are being issued. The SDE subsidy has been succeeded by the SDE+ and SDE++ subsidy schemes, which do not qualify as Eligible Green Expenditures. Part of the current subsidy decisions are financed in full over time and thus disappear from the charts. The charts 3.1 and 3.2 reflect the aggregated figures per year. The further details for 2021 are reflected below as well.

<sup>16</sup> CBS, Centraal Bureau voor de Statistiek

Graph 3.3 Production of Summary Chart

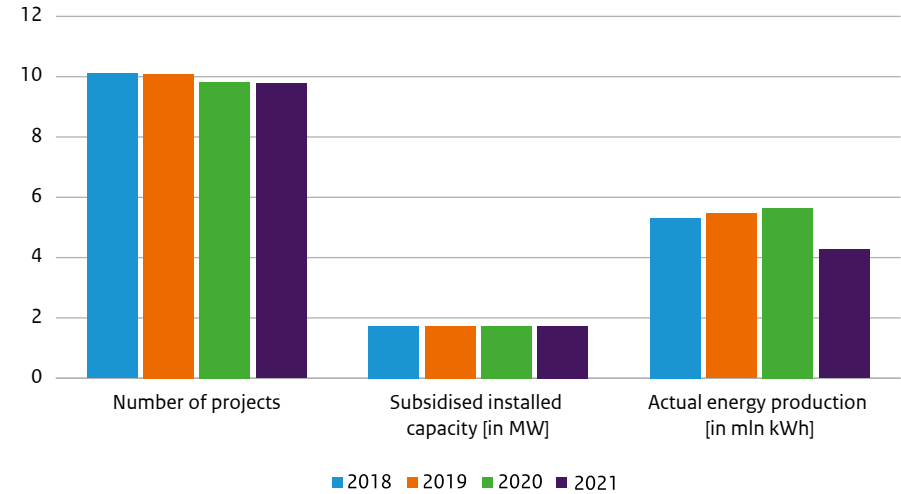


Chart 3.1 Energy production and number of projects per year

Year	Number of projects	Subsidised installed capacity [in MW]	Actual annual energy production [in mln kWh]
2018	10,113	1,734	5,308
2019	10,088	1,730	5,462
2020	9,830	1,730	5,645
<b>2021</b>	<b>9,783</b>	<b>1,730</b>	<b>4,274</b>

Chart 3.2 Cash expenditure and avoided CO2 emission per year

Year	2018	2019	2020	2021
Cash expenditures [EUR/mlin]	528	495	520	521
Avoided CO <sub>2</sub> emissions in mln. tons	3.13	3.22	2.77	1.80

For 2021, € 551 million SDE subsidy was granted for the categories solar energy, offshore wind energy, and onshore wind energy. With this subsidy, 15.38 Petajoules (4,274 million kWh) of renewable energy was generated. This generated renewable energy is equal to 1.80 megatons

of avoided carbon emissions<sup>17</sup>. In 2021, the avoided carbon emissions per generated volume of renewable energy was lower than in 2020. That is because the conversion factor used for this calculation, based on CBS publications, is lower. The reason for this is that the share of renewable energy in the energy mix increases, implying that, in relative terms, individual projects contribute less to the total carbon emission reduction in the Netherlands. At the end of 2021, 9,783 projects received subsidy for a total capacity of 1,730 megawatts.

Many parties are involved in projects subsidised with the SDE scheme, such as equity financiers, loan capital financiers, the government, local and regional authorities, and project developers. All these parties have a unique role in the realisation of the project and thus the CO<sub>2</sub> impact achieved with the projects cannot be specifically divided among the various parties involved. To illustrate this, the SDE scheme covers the unprofitable top margin, which depends on, among other things, the electricity price. Projects that are exactly the same but only started at a different point in time will have the same CO<sub>2</sub> impact, but will differ in the amount of SDE subsidy received due to changing electricity prices. However, the role of the government and the instrument used does not differ between the two projects. As a result, the calculation of the avoided CO<sub>2</sub> in the impact table is based on the total renewable electricity generation of the underlying projects and the amount of carbon emissions that this has avoided.

The ratio of the SDE subsidy paid in respect of the operational and capital expenditures varies from 51% to 74%. This cannot be interpreted as the government's share in the realisation of the projects, because the government subsidy is intended to eliminate risk by covering the unprofitable part and does not constitute an investment subsidy.

## II. Energy Efficiency

The subsidy amount in Energy performance incentive scheme for the rental sector (STEP) was granted on the basis of the improvement of the EPC energy label before and after renovation of a rental home. The houses have to improve at least two label steps in order to be eligible for the subsidy. Since 31 December 2018 the grant scheme was closed for new applications. The last regular applications were paid out in 2019 and 2020, after which projects from the waiting list could apply for a subsidy.

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<sup>17</sup> CBS, Rendementen en CO<sub>2</sub>-emissie van elektriciteitsproductie in Nederland [Yields and carbon emission of electricity production in the Netherlands], update 2021

In 2021, 6,610 rental homes were sustainably improved using the STEP subsidy, which avoided approximately 10 kilotons of CO<sub>2</sub>. The avoided carbon emissions are based on an estimated energy saving per label step per housing unit.<sup>18</sup> The number of label steps per housing unit was lower in 2021 than in previous years, because only projects from the waiting list could redeem the subsidy.

The STEP scheme requires that social housing providers and property owners invest in the renovation, the subsidy covers only a part of the expenses. The avoided CO<sub>2</sub> shown in Mtons concerns the carbon emission reduction achieved by the renovation measures using STEP. The average subsidy within STEP amounts to 25% of the landlords' investment costs, so the subsidy has merely financed this part of the total avoided CO<sub>2</sub>. Nonetheless, the subsidy was also an incentive for landlords to invest in the renovation. Furthermore, the so-called 'rebound effect' can reduce the CO<sub>2</sub> reduction that is achieved with the subsidy scheme. This effect occurs when residents in energy-efficient homes want more comfort, partly because they know their home is more energy efficient.

As a consequence, they might consume more energy and the actual energy savings are lower than expected. However, research concerning 90,000 renovated homes in the Netherlands<sup>19</sup> shows that this effect only occurs in 7.6% of the total number of renovations. Given this low percentage, rebound effects have not been included in the calculation of the avoided CO<sub>2</sub>.

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<sup>18</sup> The degree of energy savings per label step is derived from a widely-used model by TNO/ECN to assess the effects of financing structures and policy measures. In this model (the variation tool), the housing and household characteristics and energy-saving possibilities have been mapped out for a representative sample of the housing stock in the Netherlands. Of the housing in the sample, the energy consumption and presence of energy-saving measures and energy label are known. The avoided CO<sub>2</sub> per label step is then calculated by translating the average actual energy savings per label step into the resultant avoided CO<sub>2</sub>.

<sup>19</sup> Van den Brom, P., Meijer, A., & Visscher, H. (2019). Actual energy saving effects of thermal renovations in dwellings – longitudinal data analysis including building and occupant characteristics. *Energy and Buildings*, 182, 251-263

Chart 3.4 STEP Budget and savings 2018 - 2021

STEP	2018	2019	2020	2021
Budget (in million €)	105.8	134.3	101.7	18.5
Number of houses	29,463	45,289	37,820	6,610
Number of label steps	117,853	181,156	109,485	21,152
Avoided CO <sub>2</sub> in Mton	0.05	0.08	0.05	0.01
Energy savings	38.1%	38.1%	27.6%	30.5%

The reduction in primary energy consumption can also be calculated based on the above figures. In 2021, the houses that received subsidy improved by 3.2 label steps on average, saving 22.4 GJ energy per home.<sup>20</sup>

### III. Clean Transportation

By investing in management, maintenance, renewal and expansion of the railways (for passenger transport), travelers in the Netherlands are provided with a mode of transport that has very few CO<sub>2</sub> emissions. In 2021, the Ministry of Infrastructure and Water Management has completed 1 rail project. Next to that, 48 rail projects are invested in, for instance the Program High Frequency Rail Transport (PHS). The PHS program was included in the Green Bond Framework of 2021. It has been removed from the Green Bond Framework in the 2022 which is why 100% percent of the expenditure was allocated in 2021. The railway manager ProRail managed and maintained 7,053 kilometers of track in 2021.

The estimation of the avoided CO<sub>2</sub> as a result of investments and maintenance in rail infrastructure is more complicated than for the above categories of expenditure as there is no existing data for rail infrastructure suitable for the impact reporting of the green bond. In France, Carbone 4 has developed a method for SNCF-Réseau in which the avoided CO<sub>2</sub> is calculated based on the expected change in passenger behavior as a result of investments and maintenance in rail. This method has also been used by the Spanish train company ADIF-Alta Velocidad. In the first Green Bond Report the DSTA concluded after consultation with the Ministry of Infrastructure and Water Management and ProRail, that this method cannot be applied to the situation in the Netherlands. There is no “degeneration curve” available for the Netherlands that indicates how

<sup>20</sup> The energy savings per home is calculated by multiplying the number of label steps (3.2) by the energy savings per label step (7 GJ).

the infrastructure deteriorates if no investments would be made in the management, maintenance and replacement of rail infrastructure for several years.

In 2020, the DSTA has therefore commissioned Significance, an independent research agency focusing on mobility and transport, to develop a model in which the change in passenger behavior without the availability of rail infrastructure is the starting point. If no railway infrastructure were available, travellers would come to other choices with regard to means of transport, need to travel, home/work location, etc. These other choices can be partly estimated with the National Model System (LMS, *Landelijk Model Systeem*), although the LMS is not developed for this purpose. The LMS is a forecasting model of Rijkswaterstaat that predicts mobility in the Netherlands in the medium and long term and that is primarily used for capacity analysis, the consideration of different alternatives in projects and the consequences of other policy measures. Although the use of LMS for the calculation of avoided CO<sub>2</sub> due to the situation with and without the availability of rail infrastructure is a prognosis, in our opinion, this currently provides the best estimate for the avoided CO<sub>2</sub> as a result of investments and maintenance of rail infrastructure in the Netherlands.

In 2021 the total travel volume by rail was 8.63 billion passenger kilometers, which would disappear completely if there were no rail investments. Every year, approximately € 6 billion is spent on the train system, to be divided into the costs of rail infrastructure (State/ProRail) and the costs of rolling stock (NS/regional carrier). Based on the above method, Significance calculates that the total amount of avoided CO<sub>2</sub> in 2018 was approximately 776,000 tons. For the expenditure on sustainable transport allocated to the green bond in 2019, this amounts to 0.2 Mton of avoided CO<sub>2</sub> per year for the years 2018 and 2019. In 2020 and 2021 the avoided CO<sub>2</sub> was respectively 0.18 Mton and 0.04 Mton.

#### COVID-19 and the impact on avoided CO<sub>2</sub> calculations

Significance’s research focuses on two scenarios: (1) the train is not available and (2) the train is available as a means of transport. ProRail has indicated that without expenditure on management, maintenance and replacement of the railway, it is no longer justified to allow trains to run in the first year. In the first scenario, there are alternatives to the train, such as working from home more often, taking the car or bicycle or by moving. In times of the COVID-19 crisis, this choice was influenced in advance and the substitute for the train has often been working from home. In addition, consumers indicated that they more often chose an individual vehicle such as a car or bicycle when traveling.<sup>21</sup>

<sup>21</sup> Kennisinstituut voor Mobiliteit, 2020

Passenger numbers in 2021 were down 54.3% compared to 2019, when NS transported 1.3 million travelers on working days. The main reason for this sharp decrease is the lockdown that commenced in December 2020 when the government asked travelers to only commute when necessary and work from home. After easing in the spring, passenger numbers recovered somewhat, mainly due to social-recreational travelers, but less than expected. Commuters in particular have not yet returned to the train. With the start of the 2021-2022 academic year, students did return.

The use of the train and other means of transportation, apart from the (e-)bike and walking, have been in decline in 2021 as there were less movements in general. The number of passenger kilometers by rail declined to 8.63 billion in 2021, a reduction of 54.3% compared to 2019. As a result, emissions in the scenario without train (1) have been reduced by 54.3%.

As a result, the avoided CO<sub>2</sub> due to train transport does not equal 141 tons of avoided CO<sub>2</sub> emissions per million euros of rail expenditure as indicated in 2018 and 2019 in the previous Green Bond Report based on the Significance report. While the usage of train transport was lower the expenditure on management and maintenance has remained about the same. This decreases the avoided CO<sub>2</sub> per million euros. For the calculation, we assume a one-off decrease of 54.3% in 2021 compared to 2019 levels. For the expenditure on sustainable transport allocated to the green bond in 2021, this amounts to 0.10 Mtons avoided CO<sub>2</sub> in 2020 and 0.04 Mtons avoided CO<sub>2</sub> in 2021, respectively.

**Chart 3.5 Avoided Mtons CO<sub>2</sub> with Green Bond from 2018 until 2021**

Clean transportation	2018	2019	2020	2021
Avoided CO <sub>2</sub> in Mtons with green bond in 2019	0.18	0.18		
Avoided CO <sub>2</sub> in Mtons with green bond in 2020		0.02	0.08	
Avoided CO <sub>2</sub> in Mtons with green bond in 2021			0.10	0.04

## IV. Climate Change Adaptation and Sustainable Water Management

Over the past few years, the Delta Plan on Spatial Adaptation has created awareness amongst the different layers of government for the adaptation task. Significant steps have been taken in recent years to accelerate and intensify the approach to climate adaptation. In addition, the Ministry of Infrastructure and Water Management invested in twenty-five projects in 2021, such as the dyke improvement and widening of the river Maas. In total, 157 of the 1500 kilometers of identified dikes to be improved are declared safe in 2021 (10,5%). This means that they meet the flood protection standard for 2050. In 2021, 20 flood defence works of the 379 identified to be improved have been restored to a safe level. A total of 32 flood defence works (8,4%) have been reinforced since the introduction of the new flood protection program in 2016. Currently, all primary defenses (dykes and dunes) are assessed on the basis of the new standards in the Water Act (*Waterwet*). The assessment is expected to finalize in 2023.

Next to water safety, the government of the Netherlands invests in fresh water supply and water quality projects. Several Delta Plans are imbedded in the Delta Programme to facilitate the achievement of mentioned policy goals. The government works together with regional governments and other stakeholders to protect citizens against floods and droughts, to supply fresh water and to ensure water quality in an effective, efficient and sustainable manner. As an EU member state, the Netherlands complies with the 'Water Framework Directive' and 'Natura 2000' (see case study The Bruine Bank on page 26).



# 4. Case study 'Station Delft Campus': the first energy neutral station



Station Delft campus was opened on Monday 20 December 2021. After two years of renovation, it is the first energy-neutral station in the Netherlands. As a result of the iconic platform roof with solar panels, this station produces just as much energy as it consumes.

#### *Iconic platform roof*

Construction of the new Delft Campus Station started more than two years ago. There are two new platforms, four new lifts, a new bicycle and pedestrian tunnel and the iconic platform roof consisting of solar panels has been installed.

#### *Mobility*

Passenger numbers at Delft Campus station are expected to increase sharply in the coming years. Anticipating this increase, ProRail will develop four tracks on this part of the corridor. The current capacity is four trains per hour in both directions. That number could increase to six in 2025, which is in line with the ambition of the Dutch Railways (NS, *Nederlandse Spoorwegen*). This increased capacity stimulates sustainable mobility between the city of Leiden and Dordrecht. For travelers it implies they never have to wait more than nine minutes for a train.

#### *Energy neutral*

Delft Campus Station is the first energy-neutral station in the Netherlands and further helps ProRail's ambitions in the field of sustainability. Ans Rietstra, director of daily operations, is pleased with this development: "Our ambition is to generate as much electricity ourselves by 2030 as we use. We are doing this step by step, for example through generation via solar roofs at more stations and panels on noise barriers. A good example of this ambition is this renewed Delft Campus station that we will be taking into use today."

#### *Inclusive*

The new platforms are in level with the floor of the train, making it easy to board. Because there are now also lifts, everyone can travel independently from Delft Campus by train. The aim of ProRail and the government is that all stations in the Netherlands will be fully accessible by 2030.



# 5. Case Study 'The Bruine Bank': Natura 2000 area the size of Utrecht province



The Bruine Bank (Brown Ridge) area is designated as a Natura 2000 area for seabirds in the Dutch North Sea. This means that this resting and feeding area for auks, guillemots and many other bird species is secured for the future.

#### 160 Natura 2000 areas

Natura 2000 is a European network of protected natural areas. In Natura 2000 areas, certain animal species and their natural habitats are protected in order to preserve biodiversity. Rijkswaterstaat has two roles within Natura 2000: that of forerunner and water manager.

The Netherlands has more than 160 Natura 2000 areas. Together they cover an area of more than 1.2 million hectares. About 69% is water, the rest is land. The areas are part of a coherent network of nature reserves in the European Union.

All Natura 2000 sites have been selected on the basis of the EU Birds Directive and the EU Habitats Directive.

#### Compliance

The Bruine Bank is a sandbank in the Dutch Exclusive Economic Zone about 80 km west of IJmuiden. The designated Natura 2000 area has an area of 136,548 hectares, which makes it about the same size as the land area of the province of Utrecht. This shallow spot in the North Sea is rich in fish, benthic life and a large number of sea and coastal birds. The designation of the Bruine Bank complies with the international obligations arising from the EU Birds Directive.

#### Robust water system

Rijkswaterstaat is the water manager in Natura 2000 areas, and is responsible for a sustainable and robust water system. One of Rijkswaterstaat's priorities is to ensure clean and (ecologically) healthy water. This quality is necessary for a healthy nature.



# 6. Case Study sustainable housing with the STEP subsidy





The social housing provider Trivire has renovated 168 homes in Zwijndrecht to energy label A, using the STEP-scheme. These houses had not been renovated for 30 years, so a major quality improvement was necessary.

#### *Energy efficiency measures*

Trivire provided the houses with roof insulation, wall insulation, HR++ glazing and PV-panels. Furthermore, the crawling space is equipped with floor insulation and over 10 year old heating boilers have been replaced. Moreover, tenants got a ventilation system, in order to ensure indoor air quality.

#### *Cooperation*

All plans were made in cooperation with the contractor and a delegation of the residents. This opportunity to participate proved to be successful: all residents agreed to the plans.

#### *Energy cost savings*

A prerequisite for the plans was that the housing costs of tenants would not increase. This has been achieved by maximizing the rent increase at 50% of the theoretical saving (due to the renovation). Hence, the savings on energy costs were greater than the rent increase. After the first winter – and the settlement between the customer and energy suppliers – it appears that the advantage for the tenant was even greater than 50%.



# 7. Other topics regarding the green bond





## I. Market development

In 2021 the volume of green bonds on the financial markets increased in a rapid pace to over USD 1.5 trillion in cumulative green bond issuances, according to the Climate Bonds Initiative. This international organisation working to mobilise global capital for climate action estimates that in 2021 the green bond issuance amounts to USD 517 billion. This represents an increase of over 60% compared to the 2020 figure of USD 297 billion green bond issuance. Furthermore, the market for ESG bonds, such as ‘social bonds’, ‘sustainability bonds’ and ‘sustainability-linked bonds’, has grown impressively as well.

The list of ‘high profile’ issuers also increased in 2021 and further helped the development of the financial markets. The European Union launched its inaugural green bond under the ‘Next Generation EU’ recovery plan. 30% of the total of EUR 800 billion in bonds that will be issued up to 2026 with Next Generation EU, will be green. The EU raised EUR 12 billion with the launch of a 15-year green bond. Other sovereigns that entered the green bond space include Spain with an inaugural issuance of EUR 5 billion and Italy with EUR 8.5 billion.

The green bond market in the Netherlands continued to grow steadily in 2021 with 6 new issuers. After the initial issuance in 2019, the green bond of the State of the Netherlands has proven to be tradeable in the secondary market thanks, in part, to the tap auctions in 2020 and 2021. In fact, the demand for this bond continued to be very strong. Therefore it has been decided to re-open the Dutch green bond in 2022 to raise an additional EUR 5 billion. The possibility of more green issuances in 2023 will be further explored.

## II. Investor feedback on previous green bond reporting

The DSTA continued its investor dialogue on the green bond of the State of the Netherlands and reporting on the green bond. During the past year, the dialogue focussed mainly on the development of the EU Green Bond Standard. Furthermore, investors expect that it will take most issuers several years before full alignment with the EU-taxonomy will be achieved. In the meanwhile, demonstrating the level of alignment with the EU-taxonomy can be considered best practice which has been done in DSTA’s new Green Bond Framework in 2022.

The DSTA’s conversational partners also indicated they expect that the future obligation for banks respectively asset managers to report on a Green Asset Ratio (GAR) and a Green Investment Ratio (GIR) will have little impact on the demand of sovereign green bonds as governments are excluded from both the numerator and the denominator of the GAR and GIR.

## III. Dutch green bonds in the future

The outstanding amount of the Dutch State’s green bond amounts to € 10,708 billion after the auction of 23 February 2021. Hence the target size has been reached (at least EUR 10 billion, as indicated in the Green Bond Framework). The DSTA has the ambition to reopen the Green Bond by means of a Dutch Direct Auction in June 2022 for approximately € 5 billion. This will bring the total of the outstanding of the Green DSL 2040 to € 15 billion.

The Green Bond Framework has been updated to ensure that issuances or re-openings Green Bonds are in line with best market practices and in order to align with the EU Taxonomy as well as the proposed EU Green Bond Standard on a best effort basis. The aim of this voluntary alignment is to support market best practices and the uptake of the EU Taxonomy while being transparent about the level of alignment in the Second Party Opinion report. While Eligible Green Expenditures may include expenditures towards agencies and institutions which could potentially issue green bonds themselves, it is to be noted that these expenditures will only be included when there is no risk of ‘double-counting’ as a result of their potential eligibility for inclusion in other green financing instruments. Furthermore, Central Government Budget Expenditures which obtain dedicated funding are excluded from the Eligible Green Expenditures. This for instance includes expenditures financed with the EU Recovery and Resilience Facility and subsidies for renewable energy production which are pre-funded through a tax surcharge on the energy bills of companies and households in the Netherlands.

## IV. The EU Green Bond Standard and distinction with the green Next Generation EU bonds

In 2018 already the European ‘Action Plan: Financing Sustainable Growth’ called for the creation of a common classification system for sustainable economic activities, or an EU Taxonomy and an ‘EU Green Bond Standard’ in order to encourage the issuance of and investments in EU Green Bonds and improve the effectiveness, transparency, comparability and credibility of the market.<sup>22</sup> The European Commission presented its proposal for a voluntary Green Bond Standard on 6 July 2021. A key element of this proposal is that Eligible Green Expenditures should be aligned with the EU Taxonomy. Other elements are transparency through detailed reporting requirements, verification of an EU green bond by an external reviewer and

<sup>22</sup> European Commission – Action Plan: Financing Sustainable Growth, 8 March 2018 (available [here](#))

registration of external reviewers. The EU Green Bond Standard should be a “gold standard” for issuers and protect investors from greenwashing.

The Commission proposal is currently being discussed by European Parliament and the Council. The State of the Netherlands fully supports the increased level of ambition and transparency these regulations introduce.

The Netherlands aims to continuously increase its alignment with the EU Green Bond Standard in the coming years.

As pointed out in paragraph 7.11 investor feedback indicated that at this stage investors expect that a limited number of green bond issuers are currently able to demonstrate full compliance with the EU Taxonomy. In the coming years the EU Taxonomy will be further developed and complemented, whilst issuers will be adopting their policies in such a way that compliance with EU Taxonomy can be demonstrated easier.



## V. Current state of affairs climate policy

There are eight findings concerning the Netherlands’ main climate and energy targets which have to do with greenhouse gas reduction, energy saving and renewable energy.

- 1) The climate target of 2030 requires elaboration of the proposed and the new policies.  
The estimation is that by 2030 the CO<sub>2</sub> emission has decreased by 38% up to 48% compared to the level of 1990. This projection is based on the adopted and the proposed policy.
- 2) The annual limits for greenhouse gas emissions per Member State have been agreed in the Effort Sharing Regulation (ESR). These limits are feasible, but new EU proposal calls for considerable additional effort. The European Commission’s Effort Sharing Decision (ESD) and ESR regulate the emissions for the Netherlands for the activities that are not included under the EU Emissions Trading System (ETS) for large energy-intensive industry and the electricity sector.

- 3) Emissions in 2020 are around the Urgenda<sup>23</sup> target which are likely higher than in 2021.  
Risk of exceedance remains up to the year 2025. Based on the preliminary emission statistics, emission reductions in the Netherlands, in 2020, were 25% [24%–26%], compared to the level of 1990.
- 4) The current compulsory EU energy saving targets are possibly within reach. New proposal requires substantial additional effort. The energy saving target in Article 7 of the EU’s Energy Efficiency Directive (EER) may be within reach.
- 5) The current targets of renewable energy are within reach. The increase in renewable heating is insufficient.
- 6) There is a break in the trend: The national CO<sub>2</sub> tax and the SDE++ incite industry to apply carbon capture and storage and electrification.
- 7) The progress Climate Agreement differs per sector: From significant to limited.
- 8) There are drastic changes in the natural gas market. The security of supply is a possible issue.  
The Dutch natural gas market is changing rapidly.

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<sup>23</sup> The Urgenda Climate Case against the Dutch Government was the first in the world in which citizens established that their government has a legal duty to prevent dangerous climate change. On 24 June 2015, the District Court of The Hague ruled the government must cut its greenhouse gas emissions by at least 25% by the end of 2020 (compared to 1990 levels). The ruling required the government to immediately take more effective action on climate change.

# Annex I

Auditor's Report by the independent auditor



To: The Agent of the Dutch State Treasury Agency

## Our opinion

We have audited the Allocation report (chapter 2 of the Green Bond Report 2021 of the Dutch State Treasury Agency based in The Hague).

In our opinion the allocation report is prepared, in all material respects, in accordance with the principles as described in the Green Bond Framework of the Dutch State (version march 15<sup>th</sup> 2019), chapters 2.1, 2.2, 2.3 and 2.4.

## Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the allocation report' section of our report.

We are independent of the Dutch State Treasury Agency in accordance with the *Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten* (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the *Verordening gedrags- en beroepsregels accountants* (VGBA, Dutch Code of Ethics). We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### *Emphasis of the basis of accounting and restriction on use and distribution*

We draw attention to note paragraphs 1 and 2 of chapter 2 of the Green bond report 2021 of the Dutch State Treasury Agency based in The Hague, which describes the basis of accounting. The Green bond report 2021 of the Dutch State Treasury Agency based in The Hague is intended for the investors in de green bonds issued by the Dutch State Treasury Agency and is prepared to assist the Dutch State Treasury Agency to comply with the principles as described in the Green Bond Framework of the Dutch State (version march 15<sup>th</sup> 2019), chapters 2.1, 2.2, 2.3 and 2.4. As a result, the Allocation report may not be suitable for another purpose. Therefore, our auditor's report is intended solely for the Dutch State Treasury Agency and the investors in de green bonds issued by the Dutch State Treasury Agency and should not be distributed to or

used by other parties than the Dutch State Treasury Agency and the investors in the green bonds issued by the Dutch State Treasury Agency. Our opinion is not modified in respect of this matter.

## Other information

To the Allocation report other information has been added that consists of:

- Introduction
- Impact report
- Case study: Station Delft Campus
- Case study: The Bruine Bank
- Case study: sustainable housing with the STEP subsidy
- Other topics regarding the green bond

Based on the following procedures performed, we conclude that the other information is consistent with the allocation report and does not contain material misstatements.

We have read the other information. Based on our knowledge and understanding obtained through our audit or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the Allocation report.

The Agent of the Dutch State Treasury Agency is responsible for the preparation of the other information in accordance with the principles as described in the Green Bond Framework of the Dutch State (version march 15<sup>th</sup> 2019), chapters 2.1, 2.2, 2.3 and 2.4.

### *Responsibilities of the Agent of the Dutch State Treasury Agency for the allocation report.*

The Agent of the Dutch State Treasury Agency is responsible for the preparation of the allocation report in accordance with the Green Bond Framework of the Dutch State (version march 15<sup>th</sup> 2019), chapter 2.1, 2.2, 2.3 and 2.4. Furthermore, the Agent of the Dutch State Treasury Agency is responsible for such internal control as she determines is necessary to enable the preparation of the allocation report that is free from material misstatement, whether due to fraud or error.

*Our responsibilities for the audit of the allocation report.*

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the allocation report. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

For a more detailed description of our responsibilities, we refer to [https://www.nba.nl/ENG\\_algemeen\\_01](https://www.nba.nl/ENG_algemeen_01)

The Hague, may 27th 2022

Auditdienst Rijk



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# The State of the Netherlands

## POST-ISSUANCE VERIFICATION LETTER

### MARINE RENEWABLE ENERGY, WIND ENERGY, SOLAR ENERGY, LOW CARBON BUILDINGS, LOW CARBON LAND TRANSPORTATION, AND WATER INFRASTRUCTURE CRITERIA OF THE CLIMATE BONDS STANDARD

**Type of engagement:** Assurance Engagement

**Period engagement was carried out:** May 2022

**Approved verifier:** Sustainalytics

**Contact address for engagement:** De Entree 35-37 – 1101 BH, P.O. Box 22703 – 1100 DE, Amsterdam, The Netherlands

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### Scope and Objectives

In May 2019, The State of the Netherlands (the “Dutch State”) issued green bonds ( the “ Dutch State Green Bonds”) aimed at financing existing and future government expenditures that promote the Netherlands’ realization of policy objectives aimed at decarbonizing the country’s energy, housing and transportation sector, while building resilience to climate change in the following use of proceeds categories: renewable energy, energy efficiency, clean transportation, and climate change adaptation & sustainable water management.

In May 2022, the Dutch State engaged Sustainalytics to review the projects funded through the issued green bonds and provide an assessment as to whether the projects financed between January 2021 and February 2021 met the Post-Issuance Requirements under the Marine Renewable Energy<sup>1</sup>, Wind Energy,<sup>2</sup> Solar Energy,<sup>3</sup> Low Carbon Buildings,<sup>4</sup> Low Carbon Land Transportation,<sup>5</sup> and Water Infrastructure<sup>6</sup> of the Climate Bonds Standard Version 3.0<sup>7</sup>.

Green bond projects include:

- Marine Renewable energy
  - Offshore wind energy
- Wind energy
  - Onshore wind energy
- Solar energy
  - Onshore solar electricity generation facilities
- Low carbon buildings
  - Residential property energy efficiency upgrades
- Low carbon land transportation
  - Public passenger transport infrastructure
- Water infrastructure
  - Engineered water infrastructure
    - Flood defense
    - Water distribution
  - Nature-based water infrastructure

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<sup>1</sup> Climate Bonds Initiative, Marine Renewable Energy Criteria under the Climate Bonds Standard. See more, at: <https://www.climatebonds.net/standard/marine>

<sup>2</sup> Climate Bonds Initiative, Wind Energy Criteria under the Climate Bonds Standard. See more, at: <https://www.climatebonds.net/standard/wind>

<sup>3</sup> Climate Bonds Initiative, Solar Energy Criteria under the Climate Bonds Standard. See more, at: <https://www.climatebonds.net/standard/solar>

<sup>4</sup> Climate Bonds Initiative, Low Carbon Buildings Criteria under the Climate Bonds Standard. See more, at: <https://www.climatebonds.net/standard/buildings>

<sup>5</sup> Climate Bonds Initiative, Low Carbon Transport Criteria under the Climate Bonds Standard. See more, at: <https://www.climatebonds.net/standard/transport>

<sup>6</sup> Climate Bonds Initiative, Water Infrastructure Criteria under the Climate Bonds Standard. See more, at: <https://www.climatebonds.net/standard/water>

<sup>7</sup> Climate Bonds Initiative, Climate Bonds Standard Version 3.0. See more, at: [https://www.climatebonds.net/files/files/Climate%20Bonds\\_Standard\\_Version%203\\_0\\_December%202017.pdf](https://www.climatebonds.net/files/files/Climate%20Bonds_Standard_Version%203_0_December%202017.pdf)

- Flood defense

Schedule 1 provides details of the Nominated Projects & Assets and disbursement of proceeds.

### **Post-Issuance Evaluation Criteria**

Post-issuance Requirements of the Climate Bonds Standard Version 3.0:

- Use of Proceeds
- Evaluation and Selection of Projects & Assets
- Management of Proceeds
- Reporting

### **Issuing Entity's Responsibility**

The Dutch State is responsible for providing accurate information and documentation relating to the details of the projects that have been funded, including description of projects, total development cost of each project, and disbursed amounts.

### **Independence and Quality Control**

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of the Dutch State's green bond, issued to finance issued to finance issued to finance wind and solar energy projects, residential property energy efficiency upgrades, public passenger transport infrastructure projects, and water infrastructure projects, and provided an independent opinion informing the Dutch State as to the conformance of the green bond with the Post-Issuance Requirements and Marine Renewable Energy, Wind energy, Solar energy, low carbon buildings, low carbon land transportation and water infrastructure criteria of the Climate Bonds Standard.

Sustainalytics has relied on the information and the facts presented by the Dutch State with respect to the Nominated Projects & Assets. Sustainalytics is not responsible, nor shall it be held liable if any of the opinions, findings, or conclusions it has set forth herein are not correct due to incorrect or incomplete data provided by the Dutch State.

Sustainalytics makes all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the bond.

### **Verifier's Responsibility**

Sustainalytics conducted the verification in accordance with the Climate Bonds Standard Version 3.0 and with International Standard on Assurance Engagements 3000 (ISAE 3000) – Assurance Engagements other than Audits or Reviews of Historical Financial Information.

The work undertaken as part of this engagement included conversations with relevant the Dutch State employees and review of relevant documentation to confirm the conformance of the Dutch State Green bond with the Post-Issuance Requirements of the Climate Bonds Standard Version 3.0.

### **Exceptions**

No exceptions were identified. All projects aligned with the Post-Issuance Requirements of the Climate Bonds Standard Version 3.0 and were in conformance with the Marine Renewable Energy, Wind energy, Solar energy, Low Carbon Buildings, Low Carbon Land Transportation and Water Infrastructure criteria.

### **Conclusion**

Based on the limited assurance procedures conducted and evidence obtained, nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the allocation of EUR 1,715 million from the Dutch State Green Bond, issued to fund eligible green projects, is not in conformance with the Post-Issuance Requirements of the Climate Bonds Standard.



## Schedule 1: Detailed Overview of Nominated Projects and Assets

Details of the Nominated Projects which received green bond allocations from 2018 through 2021 are provided below:

### 1) Marine renewable energy: Subsidies for the following offshore wind parks

Name	Capacity, MW	Number of windmills	Location	Allocation 2018 (EUR mn)	Allocation 2019 (EUR mn)	Allocation 2020 (EUR mn)	Allocation 2021 (EUR mn)
Gemini Offshore Wind Park	600	150	Dutch North Sea	364	348	364	111
Luchterduinen Offshore Wind Park	129	43	Dutch North Sea				

### 2) Wind and Solar Energy: Subsidies for the following onshore wind and solar projects

	Number of projects 2018	Allocation 2018 (EUR mn)	Number of projects 2019	Allocation 2019 (EUR mn)	Number of projects 2020	Allocation 2020 (EUR mn)	Number of projects 2021	Allocation 2021 (EUR mn)
Onshore wind projects	142	151	141	134	141	144	141	46
Solar projects	9,968	13	9,944	13	9,686	13	9,638	4

### 3) Low carbon buildings: Residential property energy efficiency upgrades

Incentive Scheme for Energy Performance in the Rental Sector (STEP). STEP awards subsidies for refurbishments of rental housing, require a minimum improvement of two Energy Index steps, but only grant subsidy when this also results in an improvement of a minimum of two or three EPC energy label steps.<sup>8</sup> This minimum improvement is in line with the 30% threshold required by the CBI Low Carbon Buildings Standard.<sup>9</sup> As part of the programme homes must be visited by a registered Energy Performance Advisor (EPA) in order to verify compliance with the energy efficiency improvements required by the programme. In 2020, the average improvement per housing unit was 3 label steps.

Subsidies for energy savings upgrades in the rental housing sector:

Number of houses upgraded 2018	Allocation 2018 (EUR mn)	Number of houses upgraded 2019	Allocation 2019 (EUR mn)	Number of houses upgraded 2020	Allocation 2020 (EUR mn)	Number of houses upgraded 2021	Allocation 2021 (EUR mn)
29,463	106	45,289	134	37,820	46	6,610	18.2

### 4) Low Carbon Transportation:

Expenditures related to upgrading trajectories for higher-frequency passenger rail travel, railway capacity management, bicycle parking space at rail stations, and linkages to other modes of public transportation.

<sup>8</sup> STEP requirements available at: <https://www.rvo.nl/subsidies-regelingen/stimuleringsregeling-energieprestatie-huursector-step/voorwaarden-step/particulieren>

<sup>9</sup> As the State of the Netherlands is providing subsidies rather than investments, the CBI Standards Board confirmed, in February 2019, that the relative performance improvement is not required to scale based on the bond tenor.

To be eligible for Climate Bond Initiative Certification scheme, railway infrastructure must fulfill Criterion 3: Emissions threshold for public passenger transport, which is 75gCO<sub>2</sub>/passenger/km for 2020 and 56gCO<sub>2</sub>/passenger/km for 2030.

In 2017, the average emissions for Dutch passenger trains were 6g CO<sub>2</sub>/passenger/km. This performance is derived from data on the Dutch rail use,<sup>10</sup> indicating 75% of Dutch passenger km transport via intercity electric trains, 20% local electric trains, and 5% local diesel trains. Given the average 6g CO<sub>2</sub>/passenger/km, the State of the Netherlands' green bond fulfills the Climate Bond Initiative Criteria.

Expenditures and investments in the maintenance and management of railway infrastructure, development of railway infrastructure for passenger rail:

Number of realised projects 2018	Allocation 2018 (EUR mn)	Number of realised projects 2019	Allocation 2019 (EUR mn)	Number of realised projects 2020	Allocation 2020 (EUR mn)	Number of realised projects 2021	Allocation 2021 (EUR mn)
2	1,485	3	1,836	3	1,906	1	571

5) Water infrastructure expenditures include a variety of projects. In the following table examples of projects financed are included in the description:

Expenditure name	Description	Allocation 2018 (EUR mn)	Allocation 2019 (EUR mn)	Allocation 2020 (EUR mn)	Allocation 2021 (EUR mn)
Flood risk management investments	<p>Second Flood Protection Program (HWBP-2): Investments to get flood defences up to legal standard.</p> <p>Space for the River: Investments to bring safety along the Rhine branches and the downstream part of the dike Maas (from Hedikhuizen) into line with the legally required standard and contribute to improving the spatial quality of the river area, thereby strengthening the river area economically, ecologically and regarding landscape.</p> <p>Grensmaas and Zandmaas, nature development: primarily contributing to flood risk management and in addition, these projects realize nature that benefits the National Ecological Network (EHS).</p>	307	304	258	74

<sup>10</sup> Data on the use of and emissions of the Dutch train systems can be found under "Personenvervoer" at: <https://www.co2emissiefactoren.nl/lijt-emissiefactoren/>

<p>Freshwater supply investments</p>	<p>The Delta Plan on Freshwater Supply 2015-2021: Large number of initiatives and measures to make the freshwater supply in the Netherlands more robust for the future effects of climate change and to tackle the bottlenecks that are already there.</p> <p>'Haringvliet Locks Management Decision' project: improves the situation for migratory fish, such as salmon, sea trout and glass eel and improves the fresh water to agricultural areas.</p> <p>The Ministry of Infrastructure and Water Management has the ambition to work completely climatically-neutral and circular by 2030 at the latest.</p>	<p>11</p>	<p>0</p>	<p>14</p>	<p>10</p>
<p>Management, maintenance, and replacement</p>	<p>Monitoring water levels, water quality and information provision.</p> <p>Crisis management and prevention.</p> <p>Regulation of use through licensing and enforcement.</p> <p>Complying with administrative agreements on water distribution and use (including in water agreements).</p> <p>Regulation of water distribution (updating and applying operational models, operation (storm surge) barriers, weirs, pumping stations and drains).</p>	<p>208</p>	<p>195</p>	<p>144</p>	<p>67</p>
<p>Experimentation</p>	<p>Measures and provisions in other policy areas such as nature, the environment or economic development, subject to the condition that these measures are related to measures for water safety or freshwater supplies.</p>	<p>20</p>	<p>21</p>	<p>74</p>	<p>15</p>

<p>Network-related costs and other expenditures</p>	<p>Equipment costs of Rijkswaterstaat (RWS) and the Delta Commissioner Staff.</p> <p>Other network-related expenses of RWS and program expenses of the Delta Commissioner that cannot be directly allocated to the individual projects from this Delta Fund.</p>	<p>308</p>	<p>316</p>	<p>341</p>	<p>102</p>
<p>Water quality investments</p>	<p>Water safety and water quality improvements, with particular attention paid to development possibilities and safety of shipping and to nature compensation, recreation and the improvement of the habitat of flora and fauna.</p>	<p>20</p>	<p>28</p>	<p>52</p>	<p>13</p>

## Schedule 2A: Post-Issuance Requirements of the Climate Bonds Standard

<p>Use of Proceeds</p>	<p>5.1 The Net Proceeds of the Bond shall be allocated to the Nominated Projects &amp; Assets.</p> <p>5.2 All nominated Projects &amp; Assets shall meet the documented objectives of the Bond as stated under Clause 6.1.1 and shall be in conformance with the requirements of Part C of the Climate Bonds Standard.</p> <p>5.3 The Issuer shall allocate the Net Proceeds to Nominated Projects &amp; Assets within 24 months of issuance of the Bond, or the Issuer shall disclose in post-issuance reporting as per clause 8.3 the estimated timeline for allocation of net proceeds to Nominated Projects &amp; Assets. Net proceeds may be reallocated to other Nominated Projects &amp; Assets at any time while the Bond remains outstanding.</p> <p>5.4 Nominated Projects &amp; Assets shall not be nominated to other Certified Climate Bonds, Certified Climate Loans, Certified Climate Debt Instruments, green bonds, green loans or other labelled instruments (such as social bonds or SDG bonds) unless it is demonstrated by the Issuer that:</p> <p>5.4.1. distinct portions of the Nominated Projects &amp; Assets are being funded by different Certified Climate Bonds, Certified Climate Loans, Certified Climate Debt Instruments, green bonds, green loans or other labelled instruments or;</p> <p>5.4.2. the existing Certified Climate Bond, Certified Climate Loan or Certified Climate Debt Instrument is being refinanced via another Certified Climate Bond, Certified Climate Loan or Certified Climate Debt Instrument.</p> <p>5.5 Where a proportion of the Net Proceeds of the Bond are used for refinancing, the Issuer shall track the share of the Net Proceeds used for financing and refinancing and identify which Nominated Projects &amp; Assets may be refinanced. This may also include the expected look-back period for refinanced Nominated Projects &amp; Assets.</p> <p>5.6 The Net Proceeds of the Bond shall be tracked by the Issuer following a formal internal process which is documented in accordance with Clause 3.1.</p> <p>5.7 The Net Proceeds of the Bond shall be no greater than the Issuer's total investment exposure or debt obligation to the Nominated Projects &amp; Assets, or the relevant proportion of the total Market Value of the Nominated Projects &amp; Assets which are owned or financed by the Issuer.</p> <p>5.8 Additional Nominated Project &amp; Assets may be added to, or used to substitute or replenish, the portfolio of Nominated Project &amp; Assets as long as the additional Nominated Project &amp; Assets are eligible under Part C of the Climate Bonds Standard and are consistent with the Bond's objective as set out in Clause 6.1.1.</p> <p>5.8.1. Where additional Nominated Projects &amp; Assets are covered by Sector Eligibility Criteria which were not included in the scope of either the Pre-Issuance Verification or the Post-Issuance Verification engagements, the Issuer shall engage a Verifier to provide a Verifier's Report covering at least the conformance of the additional Nominated Projects &amp; Assets with the relevant Sector Eligibility Criteria under Part C of the Climate Bonds Standard.</p>
<p>Process for Evaluation and Selection of Projects &amp; Assets</p>	<p>6.1 The Issuer shall document and maintain a decision-making process which it uses to determine the continuing eligibility of the Nominated Projects &amp; Assets. This includes, without limitation:</p> <p>6.1.1. A statement on the climate-related objectives of the Bond;</p> <p>6.1.2. How the climate-related objectives of the Bond are positioned within the context of the Issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability;</p> <p>6.1.3. The Issuer's rationale for issuing the Bond;</p>

	<p>6.1.4. A process to determine whether the Nominated Projects &amp; Assets meet the eligibility requirements specified in Part C of the Climate Bonds Standard;</p> <p>6.1.5. Other information provided by the Issuer as described in Clause 2.2</p>
Management of Proceeds	<p>7.1 The Net Proceeds of the Bond shall be credited to a sub account, moved to a sub-portfolio or otherwise identified by the Issuer in an appropriate manner, and documented.</p> <p>7.2 The Issuer of the Bond shall maintain the earmarking process to manage and account for allocation of Net Proceeds to the Nominated Projects &amp; Assets as described in Clause 3.1.3</p> <p>7.3 While the Bond remains outstanding, the balance of the tracked Net Proceeds shall be reduced by amounts allocated to Nominated Projects &amp; Assets. Pending such allocations to Nominated Projects &amp; Assets, the balance of unallocated Net Proceeds shall be:</p> <p>7.3.1. Held in temporary investment instruments that are cash, or cash equivalent instruments, within a Treasury function; or</p> <p>7.3.2. Held in temporary investment instruments that do not include greenhouse gas intensive projects which are inconsistent with the delivery of a low carbon and climate resilient economy; or</p> <p>7.3.3. Applied to temporarily reduce indebtedness of a revolving nature before being redrawn for investments or disbursements to Nominated Projects &amp; Assets.</p>
Reporting – Post-issuance	<p>8.1 The Issuer shall prepare an Update Report at least annually while the Bond remains outstanding.</p> <p>8.1.2. The Update Report shall be made available to holders of the Bond and to the Climate Bonds Standard Board.</p> <p>8.1.3. The Issuer should provide an Update Report to holders of the Bond on a timely basis in case of material developments.</p>

## Schedule 2B: Conformance to the Post-Issuance Requirements of the Climate Bonds Standard

Evaluation Criteria	Factual Findings	Error or Exceptions Identified
Use of Proceeds	<p>5.1 A list of Nominated Projects &amp; Assets is provided in Schedule 1.</p> <p>5.2 The Nominated Project &amp; Assets meets the documented objectives of the finance and are in conformance with the requirements of Part C of the Climate Bonds Standard.</p> <p>5.3 The Net Proceeds have been allocated to Nominated Projects &amp; Assets within 24 months of issuance of the bond.</p> <p>5.4 The Dutch State confirms that the Nominated Projects &amp; Assets have not be nominated to other Certified Climate Bonds, Certified Climate Loans, Certified Climate Debt Instruments, green bonds, green loans or other labelled instruments (such as social bonds or SDG bonds).</p> <p>5.5 The Dutch State confirms that it has tracked the share of the Net Proceeds used for financing and refinancing.</p> <p>5.6 The Dutch State's Green Bond Framework documents that the Net Proceeds are tracked following a formal internal process.</p> <p>5.7 The Dutch State has confirmed that the Net Proceeds raised are no greater than the total investment exposure or debt obligation to the Nominated Projects &amp; Assets which are owned or financed by the Issuer.</p> <p>5.8 N/A</p> <p>5.8.1 N/A</p>	None
Process for Evaluation and Selection of Projects & Assets	<p>6.1 The Dutch State 's Green Bond Framework documents a decision-making process which it uses to determine the continuing eligibility of the Nominated Projects &amp; Assets. This includes, without limitation:</p> <p>6.1.1 A statement on the climate-related objectives of the financing;</p> <p>6.1.2 How the climate-related objectives of the financing are positioned within the context of the Dutch State's overarching objectives, strategy, policy and/or processes relating to environmental sustainability;</p> <p>6.1.3 The Dutch State's rationale for issuing the bond;</p> <p>6.1.4 A process to determine whether the Nominated Project meet the eligibility requirements specified in the Climate Bonds Standard;</p> <p>6.1.5 Other information provided by the Dutch State as described in Clause 2.2</p>	None
Management of Proceeds	<p>7.1 The Dutch State confirmed that Net Proceeds of the bond were credited to a sub account, moved to a sub-portfolio or otherwise</p>	None



	<p>identified by the Dutch State in an appropriate manner, and documented.</p> <p>7.2 The Dutch State confirmed that it maintained an earmarking process to manage and account for allocation of Net Proceeds to the Nominated Projects &amp; Assets.</p> <p>7.3 The Dutch State has confirmed that while the financing remained outstanding, the balance of the tracked Net Proceeds were reduced by amounts allocated to Nominated Projects &amp; Assets. Pending allocation, the Net Proceeds were managed according to the treasury policy of the State of Netherlands.</p>	
Reporting – Post-issuance	<p>8.1. The Dutch State is committed to preparing an Update Report at least annually while the financing remains outstanding.</p> <p>8.1.2. The Update Report will be made available to the lenders and to the Climate Bonds Standard Board.</p> <p>8.1.3. The Dutch State will provide an Update Report to the lenders on a timely basis in case of material developments</p>	None

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