



MINISTRY OF FINANCE

Kingdom of Denmark Green Bond Allocation Report 2023

November 2024



23

Kingdom of Denmark

Allocation Report

November 2024

Ministry of Finance
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Denmark

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Green bonds issued by: Danmarks Nationalbank on behalf of the Ministry of Finance (LEI: 549300PTO6LS1PTM6607)

Name of bonds assigned by the issuer: DGB 2.25'2033 G

ISIN: DK0009924615

Annual period for allocation report to refer to: January 1 – December 31, 2023

Post-issuance review of allocation of proceeds by Deloitte Statsautoriseret Revisionspartnerselskab (Business registration no.: 33 96 35 56)

The Ministry of Finance is accountable through this document for the allocation of proceeds raised in 2023 towards eligible green expenditures as identified in the Green Bond Framework. The content of this document is not subject to any approval or endorsement from ESMA or any other competent authority. The external audit statement can be found in the annex of this report.

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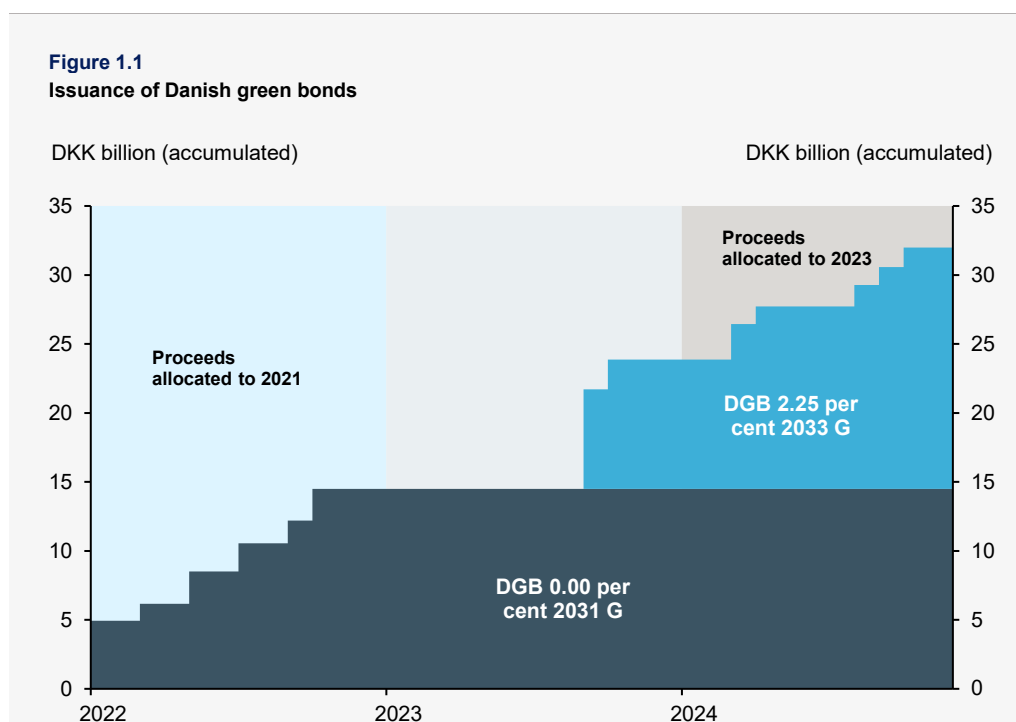


1. Introduction and Summary

In line with the principles set up in the governance section in the [Green Bond Framework](#), the Kingdom of Denmark has committed to annually publish a report detailing the allocation of green bond proceeds towards green expenditures.

This is the third annual Green Bond Allocation Report issued in accordance with the Kingdom of Denmark Green Bond Framework. The report presents an overview of the eligible green expenditures from 2023, and of the allocation of proceeds from green bond issuances in 2023 and 2024 to these expenditures.

In 2024, a total of DKK 8.1 billion have been issued via auction resulting in total proceeds of 32.0 billion being raised under the Danish Government's Green Bond Framework per ultimo 2024.



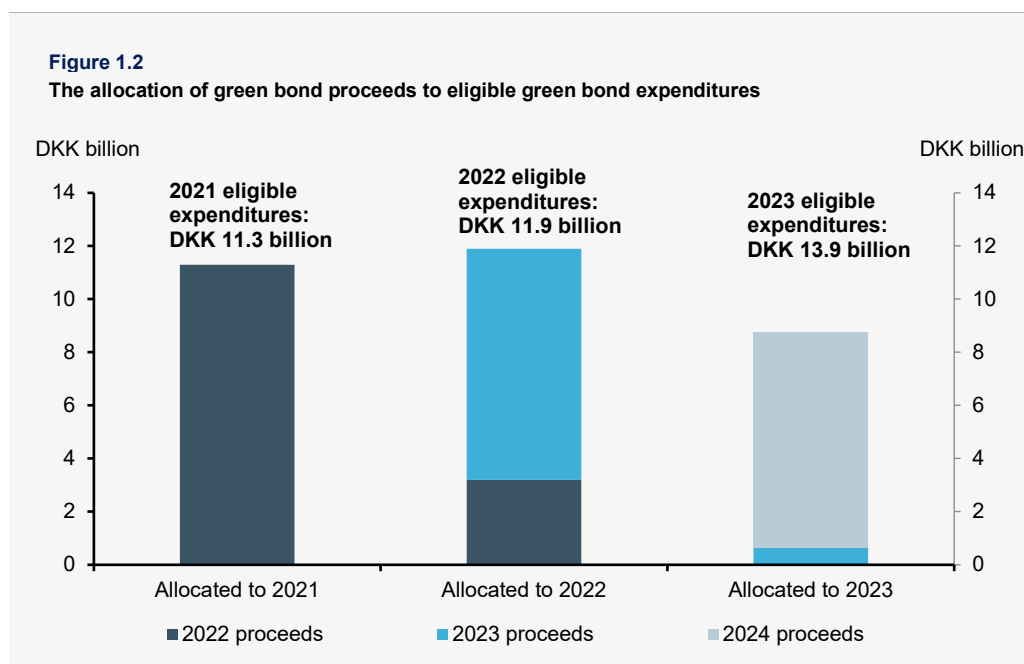
Source: Danish Central Bank

The unallocated proceeds from issuances in 2023 and the proceeds from issuances in 2024 will be allocated to eligible green expenditures from 2023. The eligible

green expenditures have been identified, assessed and approved by an Inter-Ministerial Working Group (IMWG¹). The IMWG has done this in accordance with the criteria in the green bond framework. The eligible green expenditures amounted to 13.9 billion DKK in 2023.

The eligible green expenditures are within Renewable Energy and Clean Transportation. The expenditures in the renewable energy category support the production and development of renewable energy, thereby contributing to climate change mitigation. The expenditures related to clean transportation support sustainable modes of personal and mass public transportation and the development and maintenance of infrastructure required for these.

The 13.9 billion DKK in eligible expenditures from 2023 have been financed by proceeds from green bond issuances from 2023 and 2024. Of the 9.4 billion DKK issued in 2023, 8.7 billion DKK have been allocated to finance expenditures from 2022, *see allocation report for 2022* ([link](#)). The residual 0.7 billion DKK of 2023 issuances, as well as the 8.1 billion DKK issued in 2024, have been allocated to 2023 eligible expenditures, *see figure 1.2*. The eligible green expenditures in 2023 have thus not been fully financed.



Source: Danish Ministry of Finance

¹ The Inter-Ministerial Working Group (IMWG) currently consist of the Ministry of Finance, the Ministry of Transport, the Ministry of Climate, Energy and Utilities and the Ministry of Taxation. Danmarks Nationalbank participates as a permanent observer.

The Green Bond Framework second party opinion was valid until 18 November 2024. The Danish government does not intend to issue further green bonds without a valid second party opinion. The IMWG has started work on a new Green Bond Framework for the Kingdom of Denmark that will succeed the current.

The Ministry of Finance hopes you find this third and final allocation report regarding green bonds issued by the Kingdom of Denmark useful, and welcomes any feedback.



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2. Allocation table

Table 2.1: Overview of eligible expenditures, 2023 (DKK millions)

All expenditures have the primary EU Environmental Objective of Climate Change Mitigation

Category Ministry	Description	Expenditure Category	EU Taxonomy Category	Appropriation account 2023	Eligible expenditure 2023	Allocated expenditure	Percent allocated
Renewable energy					868.8	547.3	63.0
Ministry of Climate, Energy and Utilities	Subsidies for renewable energy (PV systems and other small WE systems)	Renewable energy related subsidies	4.1	29.25.25.10 29.25.25.15 29.25.25.20 29.25.30.20	146.4	92.2	63.0
Ministry of Climate, Energy and Utilities	Subsidies for renewable energy (Off-shore wind)	Renewable energy related subsidies	4.3	29.25.22 (excl. 29.25.22.15)	241.6	152.2	63.0
Ministry of Climate, Energy and Utilities	Subsidies for renewable energy (On-shore wind)	Renewable energy related subsidies	4.3	29.25.23.10 29.25.23.11 29.25.23.13 29.25.23.20	288.8	181.9	63.0
Ministry of Climate, Energy and Utilities	Subsidies for renewable energy (Household wind systems)	Renewable energy related subsidies	4.3	29.25.23.14	67.0	42.2	63.0
Ministry of Taxation	Taxation of electricity (Exemp- tion of PV-cells)	Tax expenditures ¹⁾	4.17	38.22.01.20	125.0	78.7	63.0
Clean transportation					13,054.3	8,223.5	63.0
Ministry of Transport	Rail infrastructure projects	Railroad invest- ment projects	6.14	28.63.08	2,645.9	1,666.8	63.0
Ministry of Transport	Banedanmark – Rail infrastructure renovation and maintenance	Railroad renova- tion and mainte- nance	6.14	28.63.05.10.22	1,807.0	1,138.3	63.0
Ministry of Transport	Banedanmark – Rail infrastructure renovation and maintenance	Railroad renova- tion and mainte- nance	6.14	28.63.05.10.51	1,420.9	895.1	63.0
Ministry of Transport	Banedanmark – Rail infrastructure renovation and maintenance	Railroad renova- tion and mainte- nance	6.14	28.63.05.20.51	-	-	-
Ministry of Transport	Banedanmark – Rail infrastructure renovation and maintenance	Railroad renova- tion and mainte- nance	6.14	28.63.04	448.4	282.5	63.0
Ministry of Taxation	Registration tax (Tax expendi- ture for zero- and low-emission vehicles' reduced registration tax)	Tax expenditures ¹⁾	6.5	38.23.03.10	6,732.1	4,240.8	63.0
Sum					13,923.1	8,770.8	63.0

Note: All amounts are in DKK million. Budget Acts and national financial annual reports can be found at: <https://oes.dk/oekonomi/offentlige-regnskaber/statsregnskabet/>

1) The two tax expenditures are calculated separately from the Government Financial Account, and are based on estimates from the Ministry of Taxation. The estimates are conservative, as explained in section 4.

Source: Kingdom of Denmark Green Bond Framework (2021), National Financial Annual Report 2023.



3. Renewable energy

The Kingdom of Denmark is transforming the energy production sector to renewable energy to achieve its ambitious target of a 70 per cent reduction in CO₂-emissions in 2030 compared to 1990 levels. The Green Bond Framework includes three direct subsidy schemes and one indirect expenditure through a tax exemption scheme to incentivize this transformation. The expenditures are intended to support the production and development of renewable energy, thereby contributing to climate change mitigation.

Renewable energy subsidies

The aim of the subsidies is to promote renewable energy production. The subsidies increase the competitiveness of various renewable energy sources against fossil fuel energy and make some higher cost energy sources more feasible. However, price reductions of technologies and business model developments as well as learnings on the regulatory and planning side have now made it possible for renewable electricity to be self-financed, and the need for subsidies in the future is expected to be very limited.

The Danish Energy Agency disburses the subsidies to producers of renewable energy to the electricity grid. The payment is either given as a fixed grant, at a fixed price per produced unit of electricity or a “contract for difference” between a set price and the market price of electricity. The compensation models depend on the energy type. Subsidies for renewable energy have been fully financed via the Danish Budget Act since 2022, but were prior partly financed through the PSO program.²

The subsidies contributed to the production of about 9 TWh of renewable energy.³

² See e.g. the Allocation Report for 2021 at <https://fm.dk/arbejdsomraader/groenne-statsobligationer/>

³ A detailed description of the contributed production capacity will be available in the upcoming Impact Report for 2023.

Taxation of electricity (Exemption for own consumption of electricity from solar energy)

Electricity consumed by the owner of solar panels is exempt from taxation, as to incentivize acquisition of solar panels and use of renewable energy sources. This is one amongst other benefits of self-consumption from solar panels.

The Ministry of Taxation estimates and reports on the tax expenditure based on estimates using data regarding the development in solar panels from the Danish Energy Agency, as the self-consumed production is not registered.

On the basis of information from the Danish Energy Agency on the development in solar panels and assumptions on the power production and share of production that is self-consumed, an estimate of the total self-consumption is acquired. The total amount of self-consumption is estimated to be 900,000 MWh in 2023. The tax expenditure is estimated using the relevant levels of taxation for electricity, electricity used for heating, and electricity tax on businesses.

The electricity tax as of 2023 has been changed multiple times over the year. From January 1st until June 30th, it was temporarily 0.004 DKK per kWh, which is the EU minimum rate. From July 1st and for the remainder of the year it was increased to 0.697 DKK per kWh. It has been politically agreed to reduce the electricity tax over the coming years. In 2023, the heating tax was set at 0.008 DKK per kWh, and the electricity tax on businesses was 0.004 DKK per kWh.

Of the estimated DKK 125 million in tax exemption for 2023, the electricity tax contributed with close to 100 per cent, while the heating tax contributed a miniscule amount, and the electricity tax on businesses an even lower amount.



4. Clean transportation

Making the Danish transportation network more sustainable is a key provider in the green transition and a key provider of eligible green expenditures in the Green Bond Framework. The framework includes two direct operating and capital expenditures for the rail network infrastructure and one indirect expenditure through a tax exemption.

Rail infrastructure operation, renovation and maintenance

The Danish railway infrastructure is currently, and in the coming years, undergoing large-scale investments to provide an upgraded, more effective and greener public transportation alternative to the use of private vehicles.

The rail infrastructure projects are carried out by Banedanmark, the Danish state's Railway Infrastructure Manager. The expenditures are divided into a component for operational expenditures reflecting spare parts and salaries for the maintenance workers among other things, and capital expenditures into replacement parts. The allocation of green expenditures concerns only the related capital expenditures.

The investment projects are related to improving existing railroad service or expanding the railroad service to new areas. The aim of the projects is to expand or enhance the railway service for Danish citizens, making this form of clean transportation more attractive compared to using the vehicle for instance.

The three key projects are the signalling programme, the electrification programme and speed upgrades. The signalling program concerns the creation of a comprehensive digital signalling system, increasing efficiency, and minimizing delays. Electrification concerns the electrification of the remaining parts of the railway network outside the main railway routes, so that climate-friendly electric trains can travel in all of Denmark. Speed upgrades entails enabling high-speed train service to increase the mode of transport's attractiveness.

Of all railway renewal and maintenance costs in the Green Bond Framework, approximately 70 per cent are estimated to benefit railway lines that will be electrified before 2030, while 30 per cent of costs are estimated to benefit non-electrified lines that will be operated by battery trains by 2030.

By 2030, less than 7 years from today, 100 per cent of the Danish state's railway trackside infrastructure and associated subsystems are planned (and financed) to be either electrified or readied for battery train operation, with electrified line tracks taking up approximately 80 per cent of the state network length and battery-operated line tracks taking up the remaining 20 per cent. The total rail expenditures in the green bond framework amounted to DKK 6.3 billion.

Registration tax (Reduced registration tax for zero- and low-emission vehicles)

The transport sector is one of the largest emitters of greenhouse gases in Denmark. Emissions from the transport sector constitute around 29 percent of Denmark's total GHG emissions and the road transport sector accounts for about 90 percent of these. In December 2020, the Danish government has put forward an ambition to place 1,000,000 zero- and low emission cars on the roads by 2030. At the end of 2020, the number of zero- and low emission cars was around 60,000 in the Danish car stock. By the end of 2023, the number had increased to around 323,000 zero- and low emission passenger cars. The reduced registration tax for these vehicles provides a clear incentive for the consumer to purchase a green vehicle instead of a conventional vehicle relying solely on fossil fuels.

Zero- and low-emission vehicles receive a tax advantage in the registration tax compared to conventional vehicles. The tax advantage is larger for zero-emission vehicles (typically electrical vehicles) than for low-emission vehicles (typically plug-in hybrid vehicles). For zero-emission vehicles, the registration tax is discounted to 40 percent of the full tax, and then subtracted a flat fee of up to 165,000 DKK in 2023. For low-emission vehicles, the registration tax is discounted to 55 percent of the full tax, and then subtracted a flat fee of up to 47,500 DKK. These tax advantages will be reduced gradually towards 2030, but not to zero.

The average reduction in registration tax per newly sold zero-emission vehicle in 2023 was around 351,700 DKK and for low-emission vehicles the reduction was around 187,600 DKK.

The tax advantage for zero- and low-emission vehicles constitutes a tax expenditure. The tax expenditure covers exemptions in the tax code that give an implicit subsidy to end consumers. The Ministry of Taxation estimates and reports on the tax expenditure. The aim of the tax expenditure is to promote taxpayers' behavioral decisions towards cleaner and greener options. The tax expenditure is calculated as the overall effect on government revenue from the tax advantage, taking into account behavioral effects. If the tax advantage for zero- and low-emission vehicles was removed and these vehicles were thus competing with conventional vehicles on equal market conditions, it is expected that the sale of zero- and low-emission vehicles would be reduced to around 7,000 passenger cars, whilst there would on the other hand be some further sale of conventional vehicles. Taking behavioral effects into account the estimated revenue loss from the tax advantage is around DKK 7 billion for 2023.



I. Annex: Statement by the management

On behalf of the Danish Government, the Ministry of Finance has considered and approved the Kingdom of Denmark Allocation Report 2023 (the “Allocation report”).

The Allocation report has been prepared by the Ministry of Finance, with participation of relevant ministries forming part of the Inter-Ministerial Working Group (“IMWG”), in accordance with the Kingdom of Denmark Green Bond Framework, issued December 2021 (the “Green Bond Framework”).

In our opinion, the Allocation report gives a true and fair view of the use of proceeds for the year ended 31 December 2023. Further, in our view, the use of proceeds as reflected in the Allocation table on page 9, was allocated, in all material respects, in accordance with the principles, process, governance and selection and evaluation criteria of eligible green expenditure as outlined in section 2.2 of the Green Bond Framework.

Copenhagen, 28 November 2024

Head of Division, Ministry of Finance, Tax Policy and Capital Markets

Thomas Larsen

II. Annex: Audit Report

Independent Auditor's Assurance Report on Kingdom of Denmark's Allocation Report 2023

To Management and broader stakeholders of the Danish Ministry of Finance

The Danish Ministry of Finance engaged us to provide limited assurance on the Allocation table in the Allocation Report for the reporting year ended 31 December 2023, presented on page 9.

Management's responsibility

The Ministry of Finance is responsible for designing, implementing, and maintaining internal controls over information relevant to the preparation of the Eligible expenditure data and information in the allocation report, ensuring it is free from material misstatement, whether due to fraud or error. Furthermore, The Ministry of Finance is responsible for establishing objective accounting policies for the preparation of the allocation table, for the overall content of the Allocation Report, and for measuring and reporting the eligible expenditure data in the Allocation Report in accordance with the applicable criteria as described in the Kingdom of Denmark Green Bond Framework 2021, Criteria for Selecting Eligible Green Expenditure on page 15 (hereinafter referred to as 'the Applicable criteria').

Auditor's responsibility

Our responsibility is to express a limited assurance conclusion based on our engagement with Management and in accordance with the agreed scope of work. We have conducted our work in accordance with ISAE 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information.

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Allocation table is free from material misstatement, whether due to fraud or error, and prepared, in all material respects, in accordance with the accounting policies;
- forming an independent conclusion, based on the procedures we performed and the evidence we obtained; and
- reporting our conclusion to the Management and broader stakeholders of the Danish Ministry of Finance

Deloitte Statsautoriseret Revisionspartnerselskab applies International Standard on Quality Management 1, ISQM1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards, and applicable legal

and regulatory requirements. We have complied with the requirements for independence and other ethical requirements of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour, and ethical requirements applicable in Denmark.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Work performed

We are required to plan and perform our work in order to consider the risk of material misstatement in the Allocation Report 2023. To do so, we have performed:

- Interviews of relevant members of the Inter-Ministerial Working Group (IMWG) to understand the key processes and internal control activities for assessing the use of the proceeds, measuring, recording and reporting the allocation data to the extent relevant for forming our limited assurance opinion.
- On a sample basis, reviewed the obtained evidence to check the accuracy of the allocation of the eligible expenditure in accordance with the Applicable Criteria as set out in the Kingdom of Denmark Green Bond Framework 2021;
- considered the presentation and disclosure of the eligible expenditure included in the Allocation Report; and
- evaluated the evidence obtained.

Our conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us not to believe that the data presented in the Allocation Table on page 9 in the Allocation Report of The Danish Ministry of Finance for the year ended 31 December 2023, have been prepared, in all material respects, in accordance with the Applicable criteria as set out in the Green Bond Framework 2021 accounting policies.

Copenhagen, 28 November 2024

Deloitte

Statsautoriseret Revisionspartnerselskab
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Peter Kyhnav-Vejgaard
State Authorised Public Accountant
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Mads Berendt Søndergaard
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