

GREEN BOND IMPACT REPORT **2020**

New waterworks in Sneekkersten

GREEN BOND HIGHLIGHTS

ANNUAL CO₂ REDUCTION/AVOIDANCE

665,000

tonnes

EQUIVALENT TO THE ANNUAL EMISSIONS OF

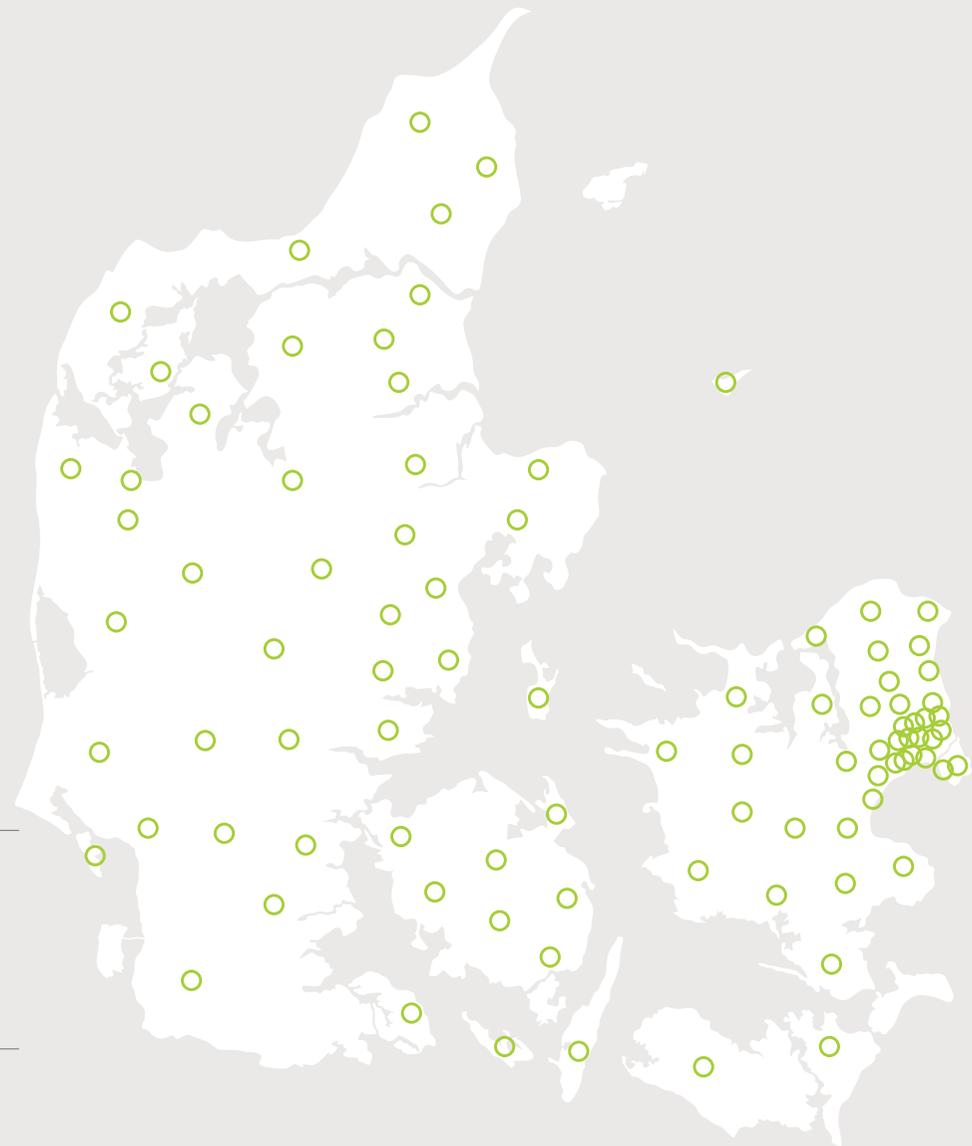
35,000

Danes¹

ENERGY SAVINGS

14,200,000

GJ



DISBURSED LOANS

407

The green loans have been provided in 95% of the Danish municipalities.

APPROVED GREEN LOANS

DKK 20 bn

GREEN BONDS

DKK 13 bn

DISBURSED GREEN LOANS

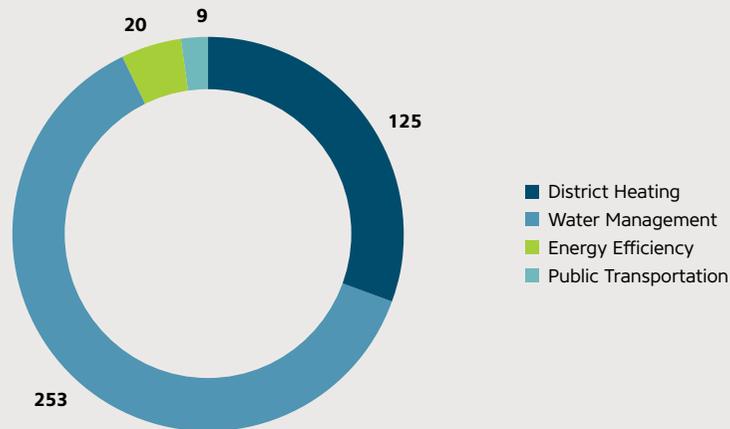
DKK 13.7 bn

By issuing green bonds we provide financing for the green transition across Denmark

GREEN PROJECTS FINANCED BY KOMMUNEKREDIT

The proceeds from our green bonds are used to finance projects within the areas of water management, district heating, energy efficiency and public transportation.

NUMBER OF PROJECTS BY AREA (DISBURSED)



 [A full list of KommuneKredit's green loans is available here](#)



WATER MANAGEMENT

New investments in and ongoing maintenance of water collection, treatment, recycling, cleaning, reuse, technologies and related infrastructure.



ENERGY EFFICIENCY

New investments in and ongoing maintenance of existing buildings leading to more energy efficient buildings. New investment or ongoing maintenance of public street lighting leading to a more energy efficient system.



DISTRICT HEATING

New investments in and ongoing maintenance of distribution infrastructure and new investments and maintenance of non-fossil energy generation and associated technological solutions providing clients with district heating leading to a reduction in CO₂ emissions. With the exception of start-up and in cases of emergencies, the district heating may be created by back-up measures, e.g. generators run on fossil fuel.



PUBLIC TRANSPORTATION

New investments in and ongoing maintenance of low-energy or emission transportation assets, systems, infrastructure, components and services that facilitate modal shifts from private transportation to increased use of public transportation such as trains, underground trams and buses to the extent that these lead to a reduction in CO₂ emissions.



CEO FOREWORD

At KommuneKredit, we prioritise to support local, regional, national and international efforts to combat climate change.

In Denmark, our national climate goal aims to reduce greenhouse gases by 70% by 2030, relative to 1990-levels. With the adoption of a national Climate Act in December 2019, the target became legally binding. Local authorities in Denmark share the high climate ambitions of the national government. This is evident from the many climate actions and climate-friendly investments carried out at the local level. Local Government Denmark (LGDK), the association and interest organization of the 98 Danish municipalities, supports the visions of a discharge-free future and recently launched a climate proposal comprising the Danish municipalities' joint suggestions on how to strengthen the framework for local climate action.

Also at the regional level, climate ambitions are high. According to Danish Regions, the interest organisation of the five regions in Denmark, climate and energy considerations are a high priority in all the regions. This applies, among other things, to the operation of the

» As the provider of nearly all local authority borrowing in Denmark, KommuneKredit plays a significant role in the local green transition of Denmark. As the sustainability ambitions of our members increase, it is only natural for us to step up our own sustainability efforts too.

hospitals and in the growth and business development efforts at the regional level.

With the launch of the European Green Deal, aiming at making Europe climate-neutral by 2050, sustainability has also come to the forefront of the agenda at EU-level. The EU's action plan on financing sustainable growth demonstrates the important role of the financial sector in the green transition of our societies.²

Sustainability is also a priority for KommuneKredit. By the end of 2019, we had disbursed DKK 13.7 billion in green loans. **Overall, the expected annual CO₂ reduction/avoidance resulting from projects financed with our green bonds amounted to approximately 665,000 tonnes.**

It is our ambition to continue to serve as a link between local green lending and global green funding, and thus contribute to a better and more sustainable future.

SUSTAINABLE FINANCE IS AT THE HEART OF THE STRATEGIC DEVELOPMENT OF KOMMUNEKREDIT

In January 2020, we launched a Transformation Programme, which represents the next step in the strategic development of KommuneKredit. The Programme consists of three tracks: Customer Journey, Balance Sheet Optimization and Sustainable Finance. Having Sustainable Finance as a key element of our strategic development is an expression of our ambitions vis-à-vis sustainability.

The Sustainable Finance track aims at integrating sustainability in KommuneKredit's business operations. Among other things, this involves strengthening KommuneKredit's work with sustainable finance, including an increase in the share of green loans and a revision of our current Green Bond Framework.

Jens Lundager
CEO

KOMMUNEKREDIT PROVIDES FINANCING FOR THE LOCAL GREEN TRANSITION

Local government spending corresponds to a quarter of the Danish GDP. Municipalities own a substantial share of the utility sector (water, waste and district heating), and collectively the municipalities are the largest property owner in Denmark. Nearly all local authority borrowing in Denmark is provided by KommuneKredit, and thus KommuneKredit is an important institution in the financing of the green transition.

KommuneKredit provides finance for a wide range of climate-friendly public purpose infrastructure, for example, climate adaptation, public transportation, dykes, energy efficiency of public buildings and sustainable utility investments. The vast majority of our lending has either a green or a social purpose although not all KommuneKredit's lending is classified as green loans as defined in our Green Bond Framework.

INTRODUCTORY REMARKS

The overall aim of KommuneKredit's Green Bond Impact Report 2020 is to give an impact statement that provides easily accessible and manageable information about KommuneKredit's green finance.

The report summarizes KommuneKredit's green bond approach and provides an account of the green impact achieved through projects financed with KommuneKredit's green bonds. The report contains examples of projects that are financed by KommuneKredit's green bonds, as well as an account of KommuneKredit's green bonds. The report concludes with a note on the methodology applied in this report.

In March 2020, the final report of the Technical Expert Group (TEG) on Sustainable Finance for the EU Taxonomy (TEG Taxonomy report) was published together with the EU Green Bond Standard Usability Guide. An aim for 2020 is to update KommuneKredit's Green Bond Framework. This work will include a review of, inter alia, the EU recommendations, including the recommendations vis-à-vis impact reporting. Overall, KommuneKredit also strives to align its reporting standard with the [Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting](#)

OUR GREEN BONDS

KommuneKredit launched its inaugural green bond in June 2017 (EUR 500 million) as the first financial institution in Denmark. The second green bond (EUR 750 million) was issued in June 2018 and in 2019, we issued our third green bond (EUR 500 million).

By year-end 2019, our [Green Bond Committee](#) had approved nearly DKK 20 billion in green loans, of which DKK 13.7 billion was disbursed. In the future, the volume of green finance is expected to increase and other types of sustainable finance may be added.

In 2019, we also launched a digital Green Loan Certificate available for our green loan borrowers. The green certificate can be obtained if the borrowers finance a project with a green loan from KommuneKredit. The certificate can be used to highlight the many green efforts of our borrowers.

As of 31 December 2019, KommuneKredit's Green Bond Committee had approved 410 eligible green loans as a basis for our green bonds. The loans vary in size ranging from DKK 120,000 to DKK 1,502,000,000 and are dispersed across local communities throughout Denmark.



[A full list of KommuneKredit's green loans is available here](#)

ABOUT KOMMUNEKREDIT

KommuneKredit provides funding to local public entities, associations of local authorities or entities with a municipal guarantee on equal terms throughout the country. Moreover, funding is solely provided for public purpose infrastructure in Denmark. Most of the investments have a green or a social profile. The advancement of the common good and promoting public value is a part of KommuneKredit's raison d'être. Read more about KommuneKredit on www.kommunekredit.com



SUPPORTING UN'S SUSTAINABLE DEVELOPMENT GOALS

In 2015, the UN's member states adopted 17 Sustainable Development Goals (SDGs) with the aim to develop the world in a more sustainable direction.

In 2019, KommuneKredit analyzed the SDG impact of its responsibility efforts³ (see our - [Responsibility Report 2019](#)). Our activities within the area of green finance proved to have the highest SDG impact of the analyzed activities.

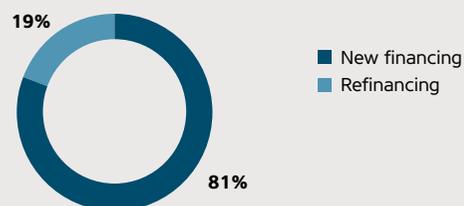
The following SDGs were identified to be supported by our sustainability efforts within the area of green finance: SDG 7 Affordable and clean energy, SDG 9 Industry, innovation and infrastructure, SDG 11 Sustainable cities and communities, SDG 12 Responsible consumption and production, SDG 13 Climate action and SDG 14 Life below water.

When updating our Green Bond Framework the ambition is to conduct a high-level mapping of the financing objectives included in the framework against the Sustainable Development Goals.



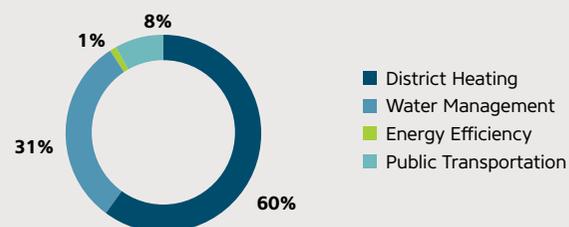
KEY FACTS

SHARE OF NEW FINANCING VS. REFINANCING

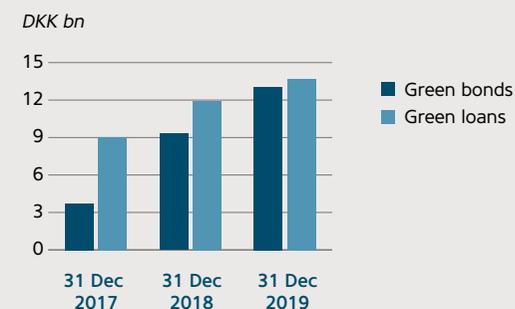


Calculated for the EUR 500 million green bond, issued 19 November 2019

DISBURSED LOANS BY CATEGORY



GREEN BONDS AND DISBURSED GREEN LOANS



KOMMUNEKREDIT'S SHARE OF IMPACT OF DISBURSED AMOUNTS

Project Category	CO ₂ Reduction/ Avoidance (tonnes)	Energy Savings (GJ)	Displacement of Fossil Fuels ⁴ (GJ)
District Heating	658,552	837,226	8,586,055
Water Management	82*	N/A	N/A
Energy Efficiency	3,704	13,349,676	Gas and oil (see project list)
Public Transportation	2,566	9,699	N/A
Total	664,904	14,196,601	8,586,055

* As a general rule, the financed water management projects do not include CO₂ reductions.

IMPACT ATTRIBUTABLE TO GREEN BOND INVESTORS**

Project Category	CO ₂ Reduction/ Avoidance (tonnes)	Energy Savings (GJ)	Displacement of Fossil Fuels ⁴ (GJ)
District Heating	625,624	795,365	8,156,752
Water Management	78	N/A	N/A
Energy Efficiency	3,519	12,682,192	Gas and oil (see project list)
Public Transportation	2,438	9,214	N/A
Total	631,659	13,486,771	8,156,752

** Total outstanding green bonds divided by total outstanding disbursed green loans, equal to 95%



SURPLUS HEAT FROM DATA CENTRE BECOMES GREEN DISTRICT HEATING

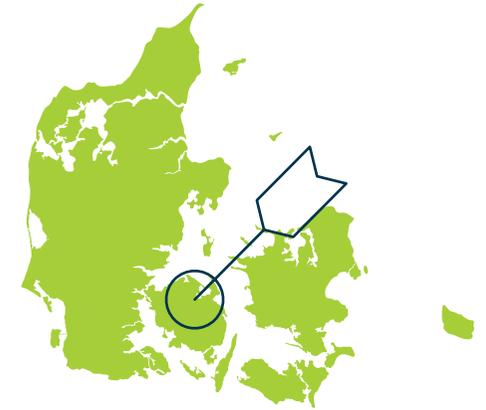
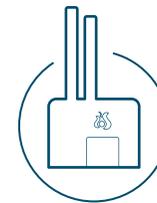
THE NEW DISTRICT HEATING FACILITY OF FJERNVARME FYN, THE 3RD LARGEST DISTRICT HEATING COMPANY IN DENMARK, USES STATE-OF-THE-ART HEAT PUMP TECHNOLOGY TO UTILIZE SURPLUS HEAT FROM A DATA CENTRE FOR GREEN DISTRICT HEATING.

When the district heating facility, Tietgenbyen's Varmecentral, is shortly put into service, nine large heat pumps will initially supply approximately 7,000 households in Odense with green district heating. The green district heating is produced with surplus heat from a data centre that is situated in the suburb of Odense called Tietgenbyen.

The new plant will be the largest of its kind in Denmark. The project therefore passes several milestones both in terms of size, technology and – especially – green profile. Namely, the power for the data centre comes from renewable energy, and

the district heating produced is therefore CO₂ neutral while displacing a similar amount of fossil-generated heat.

The project is a natural extension of the efforts already being made by Fjernvarme Fyn to utilise surplus heat from local industrial companies and to electrify district heating. It has attracted great attention both nationally and internationally due to the many technical breakthroughs. Thus, the facility is also a showcase, where both Danish and foreign visitors can draw inspiration for the green transition.



FACTS:

Total project investment:
DKK 260,000,000

Disbursed loan from KommuneKredit:
DKK 75,000,000

Expected annual CO₂ reduction/avoidance in total through the displacement of coal:
142,000 tonnes



NEW STATE-OF-THE-ART HYBRID FERRY ENSURES A MORE ENVIRONMENTALLY-FRIENDLY CROSSING



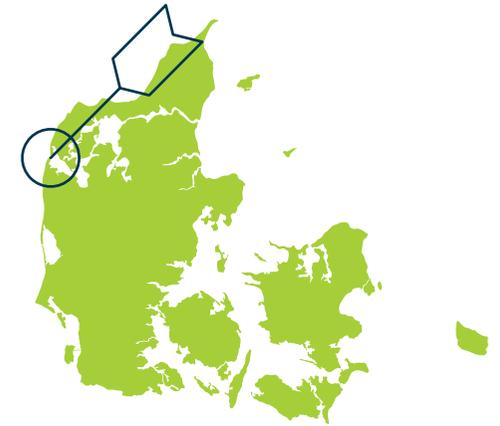
IN THE FUTURE, A STATE-OF-THE-ART HYBRID FERRY WILL CONNECT THYBORØN AND AGGER TANGE IN THE NORTH OF JUTLAND, DENMARK, AND BRIDGE THE LIMFJORD.

When commuters, freighters and tourists board the ferry between Thyborøn and Agger in the future, it will be a ferry with a green and climate-friendly profile. Lemvig and Thisted municipalities have invested DKK 107 million in a new, modern hybrid ferry and two new ferry berths. The new investment has made the crossing between Thyborøn and Agger Tange not only more stable, safe and comfortable, but also more environmentally-friendly.

The ferry, which annually carries 7,000 trucks, 60,000 cars and 145,000 passengers, is a good, future-proof investment for both

municipalities and is of great importance to the business community, to the local population and to tourists visiting the area.

The ferry supports Lemvig and Thisted Municipalities' green and climate-friendly profile. It is state-of-the-art and is powered by an electric motor with batteries that are charged by a diesel generator. In other words, the generator generates electricity, and the batteries store the surplus energy, which would otherwise have been lost. The new ferry also ensures efficient operation and flexibility in relation to the future technological development.



FACTS:

Total project investment:
DKK 107,000,000

Disbursed loan from KommuneKredit:
DKK 107,000,000

Total energy savings of 9699 GJ/annually

Annual CO₂ reduction/avoidance in total:
> 700 tonnes (compared to a similar-sized standard ferry with diesel-based propulsion)



A NEW WATERWORKS IN SNEKKERSTEN ENSURES A MORE SUSTAINABLE FUTURE



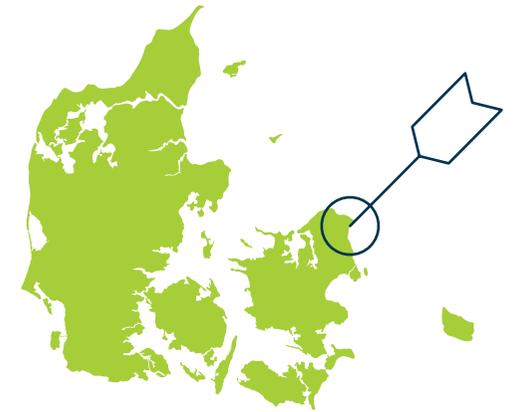
THE USE OF NEW TECHNOLOGY, INCLUDING OXIDATION AND FILTRATION IN CLOSED PRESSURE FILTERS, MINIMISES THE RISK OF POLLUTION AND THE DISCHARGE OF CONTAMINANTS.

A new waterworks in Snekkersten, introduces new technology, which meets the safety requirements of the future, and thus lessens the risk of contamination and pollution. It is a well-proven technology that will measure up to future stricter demands for safety, hygiene and food quality.

The clean water tanks are closed and made of stainless steel, and at the same time placed openly above ground. Apart from reducing the risk of contaminants and pollution it makes it easier to maintain the tanks. All processes are carried out in closed units – including both oxidation and filtration tanks.

Thus, the general hygiene surrounding the production of clean and healthy drinking water is increased.

A UV treatment plant has been installed to ensure water quality. Moreover, the new waterworks is integrated into the terrain and uses the natural differences in terrain levels to direct the water through the different treatment processes. Part of the exterior of the building is covered in rusty-red maintenance-free metal panels, and large window sections open the waterworks to the local community and provide a glimpse of the production facilities.



FACTS:

Impact:

- Increased drinking water quality
- Reduced risk of contamination and pollution in water supply

Expected service life of 75 years



THE MUNICIPALITY OF HVIDOVRE ACHIEVES SIGNIFICANT SAVINGS OF ENERGY WHEN RENOVATING THEIR BUILDINGS



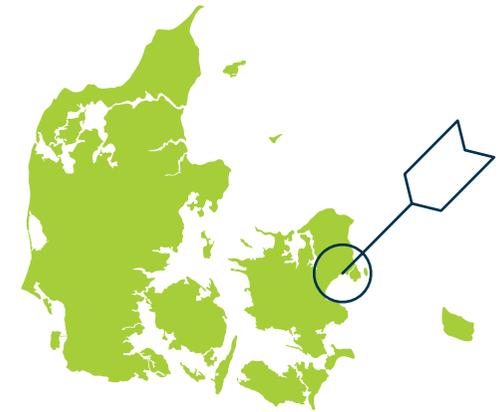
ENERGY RENOVATIONS ARE TO ENSURE AN IMPROVEMENT OF THE MUNICIPALITY OF HVIDOVRE'S MANY BUILDINGS, SO THAT THE MUNICIPALITY DOES NOT SPEND MORE ENERGY THAN NECESSARY ON, AMONG OTHER THINGS, PUBLIC SCHOOLS, THE TOWN HALL, SPORTS HALLS AND OTHER INSTITUTIONS.

The energy renovation projects in the municipality of Hvidovre are ambitious. And it goes for each building that the improvements that have the greatest potential in terms of saving energy are the ones carried out.

In addition to implementing extra insulation of ceilings and walls, ventilation as well as maintenance and monitoring are also taken into consideration to prevent waste of resources and leaks. The project also includes replacement of windows

and of current lighting with LED, as well as, checking and replacing appliances, toilets and mixer taps with more energy-friendly models. Also, several improvements to the indoor climate are being made in selected buildings.

Part of the loan is given for a so-called ESCO project. ESCO stands for Energy Service Companies and is a collaborative way to achieve energy savings in buildings.



FACTS:

Total project investment:
DKK 41,600,000

Disbursed loan from KommuneKredit:
DKK 35,532,000

Annual CO₂ reduction/avoidance in total:
458 tonnes

KOMMUNEKREDIT'S GREEN BONDS

In 2019, KommuneKredit once again issued a green bond, this time with a 20-year term-to-maturity. The new EUR 500 million issue builds on the two previous benchmarks to a total of EUR 1.75 billion in outstanding green bonds.

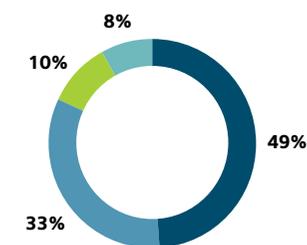
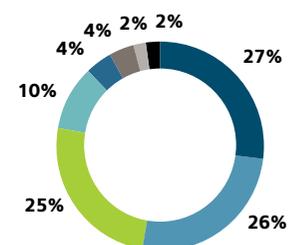
While interest in KommuneKredit's green bonds has always been strong, this issue was in particularly high demand by investors, as the orderbook was more than four times oversubscribed and more than 75 international investors participated.

KommuneKredit will also aim to play an active role in the Green Bond market in 2020, provided that there is a sufficient demand for eligible green loans.

OUTSTANDING GREEN BONDS

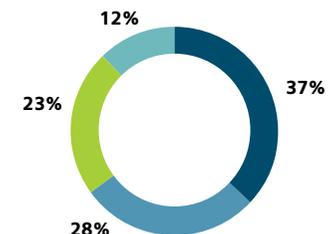
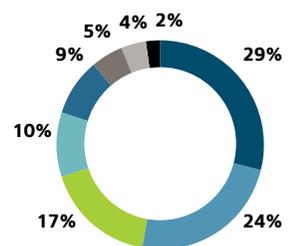
ISIN	Size	Issue date	Maturity date	Coupon
XS1622415674	EUR 500 m	1 June 2017	18 May 2027	0.75%
XS1851226891	EUR 750 m	5 July 2018	5 July 2028	0.75%
XS2081058096	EUR 500 m	19 Nov. 2019	21 Nov. 2039	0.625%

INVESTOR DISTRIBUTION*



* 3rd green bond EUR 500 million due 2039

INVESTOR DISTRIBUTION - TOTAL OUTSTANDING GREEN BONDS



METHODOLOGY

The methodology applied in this report is divided into two main parts: A general approach and a specific approach.

General approach

A portfolio approach is applied in this impact report. A dynamic portfolio path is applied where a breakdown of impact attributable to each bond using a simple pro-rata allocation is provided.

KommuneKredit reports CO₂ reduction and other impacts per invested monetary unit solely for investments made in projects or project categories where such impact is quantifiable and relevant.

The reported impacts are based on ex ante impact assessments provided by KommuneKredit's clients. KommuneKredit does not validate the provided data.

Our Eligible Project Criteria (as defined in our [Green Bond Framework](#)) allow projects that contribute to either a CO₂ reduction compared to an existing situation or a zero CO₂ project (maintaining an existing climate-friendly project profile/solution).

On a number of projects, particularly within the water management category, it is not possible to collect impact data. This is due to the fact that some of the projects have a long-lasting construction phase, and clients therefore borrow on an

ongoing basis (annually) for their running capital expenditures. Furthermore, a given loan can cover several projects. Although these projects are by definition all environmentally friendly, it is proving difficult to quantify the impact.

Specific approach

While KommuneKredit allows for both new financing and refinancing from its outstanding green bonds proceeds, KommuneKredit's ambition is to use the majority of the proceeds for new projects (financed within 15 months before the time of the green bond issuance) as defined in our Green Bond Framework.

Since KommuneKredit now has three outstanding green bonds, the distribution between new financing and refinancing is based on the relevant issue dates. When calculating the split between new finance and refinance, KommuneKredit applies a waterfall-principle. Firstly, we count 15 months backwards from the issue date of the relevant green bond. If the accumulated notional of green loans, disbursed within 15 months, is greater than the notional of the relevant green bond, the "new financing" is 100%. The same approach is repeated for the other green bond issues.

The outstanding notional of the Green Loan Portfolio may vary over time and on any given historical date. New green loans are added to the Green Loan Portfolio at the date of approval by the Green Bond Committee. The Green Loan Portfolio amount is adjusted for loan pre- and repayments.

END NOTES

- ¹ The calculation is based on CONCITO's [estimated annual carbon dioxide emission per capita in Denmark](#). CONCITO, Denmark's Green Think Thank. 2017.
- ² The main objectives of the [Action Plan](#) is; reorienting capital flows towards sustainable investment, managing financial risks stemming from climate change, environmental degradation and social issues and fostering transparency and long-termism in financial and economic activity.
- ³ The analysis was conducted by the Swedish consultancy Ethos International. It is important to note that the conducted analysis concerns how the SDGs relate to our responsibility efforts, not the whole business model of KommuneKredit.
- ⁴ Please note that KommuneKredit has only to a limited extent received data on the extent of displacement of fossil fuels from the borrowers.

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