

# Nordic Environment Finance Corporation

Annual  
Review  
2018



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# About NEFCO



All our financing and activities are aimed at green growth and climate action globally, with particular focus on Eastern Europe, the Baltic Sea, and the Arctic and Barents regions



We provide added value to our stakeholders through our focus on small and medium-sized projects



We help Nordic governments and our partners to reach their environmental and sustainability goals



The Nordic Environment Finance Corporation (NEFCO) is an international financial institution (IFI) established in 1990 by the five Nordic countries: Denmark, Finland, Iceland, Norway and Sweden. We finance exclusively green growth and climate projects in order to generate positive environmental impact of interest to the Nordic governments. By focusing on small and medium-sized environmental projects and on achieving tangible and cost-efficient results, we provide added value to our owners, partners and customers.

Our extensive network within the green community and our proven ability to connect stakeholders and financiers to relevant projects support NEFCO's role as fund manager and implementing agency for a number of trust funds in addition to our

own investment activities. Our financing has a catalytic role and high additivity, helping the Nordic governments and our partners to reach their environmental and sustainability goals.

We offer risk capital for green investments to supplement other sources of financing and create blended finance opportunities through a combination of grants, loans and equity. Combined with hands-on environmental expertise, we help customers to build capacity and mobilise additional financing for their projects.

Over the years, we have financed a total of about 900 small and medium-sized, private and public sector projects across different sectors in 51 countries. In addition, since the administration of the fund was transferred to NEFCO in 2014, the Nordic Project Fund (Nopef) has provided support to 356 green sector projects to help the companies undergo internationalisation across 56 countries.



# Review by the managing director

A new Swedish initiative for the development of long-term sustainable district heating systems in Ukraine was announced at the Nordic Green to Scale seminar in Kyiv in September 2018 by Magnus Rystedt, NEFCO's Managing Director, and Martin Hagström, the Ambassador of Sweden to Ukraine.



Photo: Veikko Somerpuro

In 2018, we saw some remarkable development in NEFCO's operations. We are on track in terms of our environmental objectives, and our financial result was also strong, partly thanks to profitable sales of shares in two companies and partly due to improvements in the economic situation in Ukraine, one of our core countries of operation.

We managed to increase our investment activities and approved a larger number of investments than ever before in both the public and the private sector. Our consistent work for many years with municipalities in Eastern Europe is paying off. Today, NEFCO is a sought-after financing partner in this sector, and several new funds or initiatives for public projects were set up and assigned to NEFCO during the past year.

## From local environmental projects to combatting the global climate crisis

NEFCO has an important role in financing green projects in Eastern Europe. The new

global mandate has now also started to take off. This allows us to build on our financing activities through Nopef and facilitate the implementation of Nordic smart and green solutions in their critical growth phase on global markets.

In October, the Green Climate Fund (GCF) decided to include NEFCO as one of its accredited entities. We believe this is an acknowledgment of our ability to manage funds efficiently and deliver results, while at the same time adopting and demanding the highest standards, policies and routines in our activities. The accreditation to the world's largest climate fund will allow us to scale up projects further and deliver results with greater impact.

## A positive outlook on the future

After 19 years at NEFCO, the last 13 of which as Managing Director, it is time for me to hand over the role to my successor Trond Moe. He was chosen from several candidates by the Board in February 2019 and will take office on 1 June 2019. As Trond has already worked with

us for some time and is familiar with our mandate, activities and organisation, I am confident that he will continue the positive development of NEFCO's financing operations and lead the organisation to new success stories.

To wrap up, I believe the success of NEFCO boils down to three major factors. First, we have managed to achieve good environmental results through our projects. Second, our operations have remained profitable despite some difficult times during the financial crisis in 2008 and the more recent crisis in Ukraine. Third, and probably the most important reason, we have managed to create high additionality to our owners, financiers and customers with our catalytic early-stage financing and ability to find and implement projects in an agile and cost-efficient way.

Magnus Rystedt  
Managing Director

# Small steps to create greater impact



**3.9 million tonnes  
CO<sub>2</sub> direct + CER  
reduced**

= 3.6 million people flying from Helsinki to Bangkok and back



**979 tonnes P-tot  
4,498 tonnes N-tot  
reduced**

= annual untreated wastewater from all inhabitants in Copenhagen

## Focus on projects with high demonstration value impact

NEFCO's financing is targeted at small and medium-sized private and public projects (SMPs) with demonstration value. Many of the numerous SMPs financed by us are at the forefront of technological innovation and aimed at testing the application of Nordic green solutions, with up-scaling possibilities in local, non-Nordic circumstances. Projects with a high demonstration value have the potential to grow and generate environmental impact that is orders of magnitude greater than our investment. The ultimate goal of our activities is to successfully implement solutions that benefit the environment and climate in a cost-efficient way.

## Providing high additioality

By connecting stakeholders and various financiers to relevant projects, we provide high additioality and help our partners to reach their environmental and sustainability goals.

Our risk financing for small projects, growth companies and challenging geographical regions supplements financing offered by the larger IFIs and other financiers. We also offer hands-on environmental advice and capacity building to enable smaller customers and beneficiaries to become better at mobilising additional financing.



## Green growth

We facilitate green growth by providing risk capital, grants and environmental expertise. Our objective is to support the scaleup of Nordic smart, green solutions globally and to create positive environmental impact.

See more on pages 22-23.



## Baltic Sea

The reduction of pollutants affecting the Baltic Sea has been a key priority for us from the very beginning. We finance both public and private sector projects related to agriculture, wastewater treatment and hazardous waste within the Baltic Sea catchment area through our various programmes.

See more on pages 32-33.



## Climate

To support climate change mitigation and adaptation initiatives, we mobilise new investments and funding for projects related to renewable energy, energy efficiency and the reduction of short-lived climate pollutants and greenhouse gas emissions in close co-operation with governments, municipalities, companies and other organisations.

See more on pages 24-27.



## Arctic & Barents

We provide financing for project preparation activities, studies and demonstration projects with the aim to further develop and disseminate the best available technologies and practices that contribute to energy efficiency, sustainable use of resources and pollution mitigation, and a positive impact on communities in the Arctic and Barents regions.

See more on pages 28-31.



# Highlights from our activities in 2018



Global mandate taking off



Accredited by the  
Green Climate  
Fund (GCF)



Strong Nordic  
presence in  
Ukraine



Adoption of new  
Gender Policy



GREEN  
CLIMATE  
FUND

The year 2018 was very successful for us, with several remarkable steps.

A major achievement was that NEFCO was the first Nordic institution to receive Green Climate Fund (GCF) accreditation in October 2018.

In our focus countries, Ukraine, Belarus and Russia, the situation was sufficiently stable for investments over the past year. Despite the high levels of risk and the continuation of the armed conflict in eastern Ukraine, the economic situation has stabilised somewhat. The hope now is that this stabilisation can continue and that the 2019 elections in Ukraine will not create new uncertainty.

Our renewed global mandate has also opened up new financing opportunities within green growth outside Eastern Europe and further developed during the past year.



## Adoption of a new Gender Policy

The NEFCO Gender Policy was launched in February, with the aim of emphasising NEFCO's commitment to the shared goals and objectives of its owner countries in promoting gender equality and the Nordic countries' role as a leading example of delivering on the Sustainable Development Goals, including, in particular, Goal 5 – Achieve gender equality and empower all women and girls. While NEFCO's financing – due to its specific environmental mandate – is not targeted at enabling implementation of projects based on their potential to contribute to achieving gender equality, proactive action means that the gender perspective is evaluated in all of NEFCO's financing activities.



## Stronger Nordic presence in Ukraine

The Nordic financing initiatives, Energy Saving Credits (ESC) and Nordic Initiative for Energy Efficiency and Humanitarian Support (NIU), have so far enabled the public sector to implement energy-efficiency measures in more than 400 schools, day-care centres and hospitals, as well as in municipal street lighting in southeast Ukraine. The aim is to strengthen the demonstration value and provide leverage of donor funds with credit financing. During 2018, 29 projects were under implementation. The programmes have proven highly relevant and effective. Not only have the municipalities been able to save energy and costs and reduce their carbon footprint but over 170,000 children and staff have also benefitted from better comfort.

Building on the experience and positive impact of these projects, the Nordic countries have further developed additional initiatives to support climate action in Ukraine. In 2018, Sweden decided to scale up its support for the development of district heating, and Finland launched its funding programme for renewable energy development in Ukraine. Norway aims to increase its support for municipal energy-efficiency projects, and Denmark is financing private sector projects, in particular, related to renewable energy. Denmark has also been involved in the first public sector investment by NEFCO in Georgia.



Photo: Patrik Rastenberger for NEFCO

## Scaling up Nordic green solutions on global markets

During 2018, we actively developed project opportunities in line with the new global mandate that was approved in June 2017. The global mandate enables us to finance green investments beyond Eastern Europe, thus creating synergies with the Nordic Project Fund (Nopef), which supports the early stage internationalisation of Nordic small and medium-sized enterprises (SMEs). The aim is to facilitate the scaleup of Nordic companies and solutions on global markets by offering financing in the critical growth phase and when other types of financing are not available. Four Global projects were approved in 2018 and more are underway.

## Financing under the global mandate is aimed at:

- Supporting the internationalisation of Nordic SMEs and mid-cap companies and their green solutions
- Enabling green investments in equipment, technology or capacity needed for production or international business development
- Providing catalytic funding through loans or equity-type financing

## CASE:

# Electricity from geothermal and waste heat

Swedish Baseload Capital is an investment entity established by three Swedish venture capital companies and Climeon, a Swedish cleantech vendor, for the development of renewable energy projects. Breakthrough Energy Ventures, which is backed by some of the world's leading business executives, including Bill Gates, Jeff Bezos and Richard Branson, has been a shareholder of Baseload Capital since early 2019.

In 2018, Baseload Capital received loan financing from NEFCO to expand Climeon Heat Power technology on global markets, in particular Eastern Europe,

Asia and North America. The technology generates electricity from waste heat and geothermal heat at low temperatures in a cost-efficient way, ensuring a 24/7 supply of clean energy. Each power plant deployment will result in significant CO<sub>2</sub> reductions as well as economic benefits and contribute to scaling up Nordic green technology on global markets. Both Baseload Capital and Climeon have also received financial support for early stage market exploration from the Nordic Project Fund (Nopef), providing a further boost to international growth.



# Mobilising green finance



**165 m€**

in own equity



**39**

trust fund assignments



**352 m€**

value of trust fund assignments by the end of 2018



NEFCO's objective is to finance public and private, small and medium-sized projects with high additionality and demonstration value of relevance and interest to the Nordic countries. We aim to lead the way by concrete examples. Through our many innovative demonstration projects, we aim to inspire replication, mainstream and open doors for larger new investments and mobilisation of green financing at scale. Everything we do is hands-on, creating impact – and impact potential – by supporting companies, cities and project developers on the ground.

We help SMEs and mid-cap companies to grow Nordic green solutions on global markets through the Nordic Project Fund. For public projects, we offer softer financing options, including grants, technical assistance and project support, to get started. We blend our own loan funds with financing provided through us to develop and prepare new public green investments, soften our loans and de-risk the investment. By combining different financing sources available to us – our own funds and funds we hold in trust – we leverage and make projects feasible and bankable.

NEFCO holds substantial funds in trust from the Nordic governments and

Arctic Council members, among others, and is accredited by both the European Union and the Green Climate Fund. Our trust fund management complies with the highest fiduciary standards, and we have the necessary experience, competence and procedures to handle substantial trust fund assignments.

At the end of 2018, NEFCO had 39 trust fund assignments with a total value of EUR 352 million.

## New fund assignments in 2018

Seven new trust fund assignments were started during the year:

- The establishment of a Swedish initiative, Sweden-NEFCO District Heating in Ukraine Fund, to support the development of modern and energy-efficient district heating with a focus on renewable fuels in Ukraine
- The establishment of a Norwegian initiative, Norway-Ukraine Energy Efficiency Initiative, to support energy efficiency in Ukraine
- The establishment of a joint Finnish-Swedish initiative to support activity in connection with the 'Nordic Initiative for Cooperative Approaches' (NICA) to support the implementation of the Paris Agreement on a broader scale, distributed over two funds
- The implementation of three new municipal projects financed by the Eastern Europe Energy Efficiency and Environment Partnership (E5P) in relation to energy efficiency in Ukraine

## CASE:

### Beyond the Grid Fund for Africa

Over 600 million people in sub-Saharan Africa live without access to electricity today. For most of these people, connection to the grid is not likely to happen for decades, or longer. The Beyond the Grid Fund for Africa (BGFA) aims to reduce this gap by stimulating and accelerating the emergence of new business models to incentivise the private sector to offer affordable and clean energy access at scale to people living in rural and peri-urban areas. The programme builds on the positive experiences of the Beyond the Grid Fund for Zambia (BGFZ), which Sweden commenced in 2016 (see picture on the left).

In 2018, the Swedish International Development Cooperation Agency (Sida) requested NEFCO to lead an expansion and establish the new BGFA programme. The facility management agreement was signed in early 2019 with Sweden that will contribute EUR 50 million during six years. NEFCO will manage the facility and the programme will be implemented in co-operation with the Renewable Energy and Energy Efficiency Partnership (REEEP).

# Key figures 2018

Result of the year  
**EUR 8.55 million**

**124**  
new projects of  
**EUR 64.6 million**  
approved

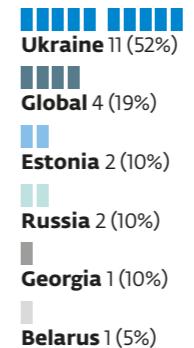
**7**  
new Trust Fund  
assignments  
achieved

Looking at NEFCO's project activity as a whole, 124 projects, worth EUR 64.6 million, were approved during the year. Within the Investment Fund, NEFCO's authorised capital, 15 new investments worth a total of EUR 50.2 million were approved, and by the end of the year, the corporation had a total of 65 ongoing projects, equating to a total commitment of EUR 211.6 million in funding.

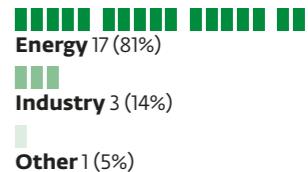
From an environmental perspective, climate-related investments and projects continue to dominate. As in previous years, energy-efficiency measures make up the largest single category, but there has also been a high project activity related to renewable energy production, cleaner technology innovations and resource efficiency measures.

According to NEFCO's financial results for the year, the Corporation made a profit of EUR 8.55 million. This healthy result is largely due to sales of shares in two companies, as well as to improvements in Ukraine's economic situation over the year. The majority of the shares sold were in a wind power operator in the Baltic States. Following an improved stability in Ukraine, a number of reservations made due to the crises in 2014–2015 were not realised and could instead be reversed.

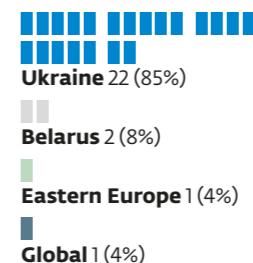
NEFCO agreed and approved investments in 2018 by location



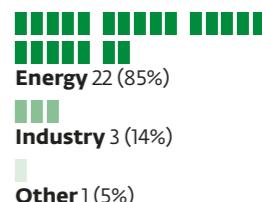
NEFCO agreed and approved investments in 2018 by sector



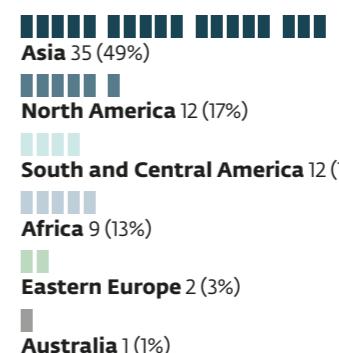
NMF and NMF Credits agreed and approved projects in 2018 by location



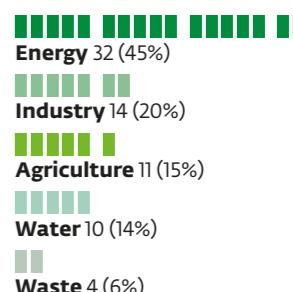
NMF and NMF Credits agreed and approved projects in 2018 by sector



Approved Nogef projects in 2018 by location



Approved Nogef projects in 2018 by sector



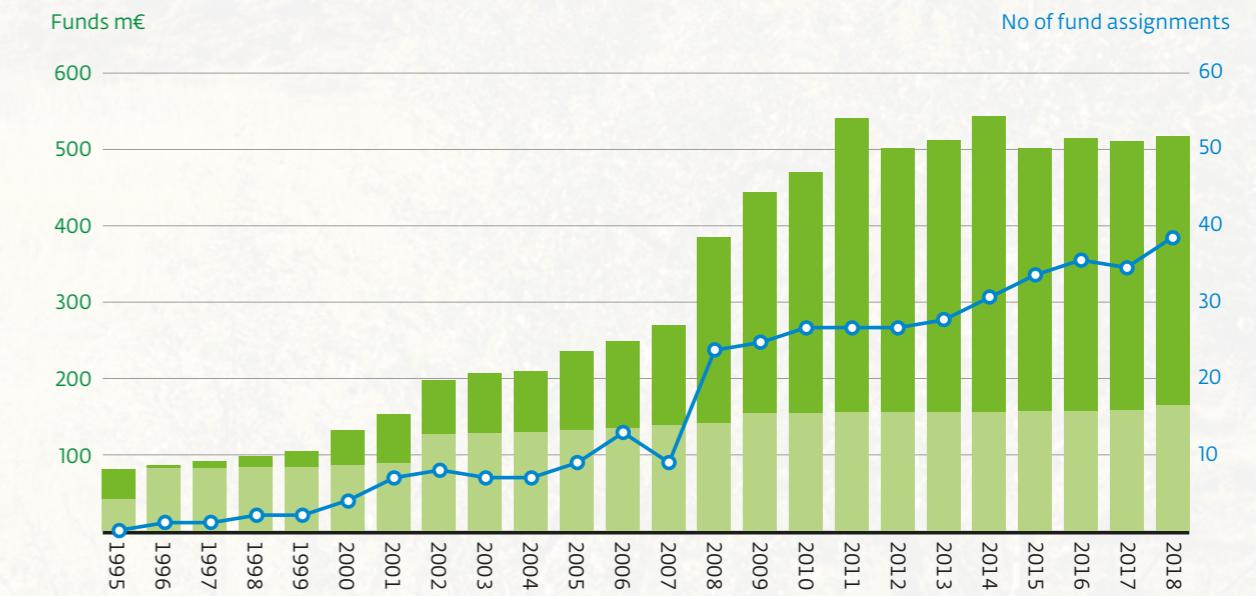


Complete Financial Statements are available in our Annual Report 2018 [www.nefco.org](http://www.nefco.org)

#### Funds managed by NEFCO

Since the establishment of NEFCO in 1990, the number of trust fund assignments has increased steadily. Altogether NEFCO has had fund assignments for a total of EUR 730 million.

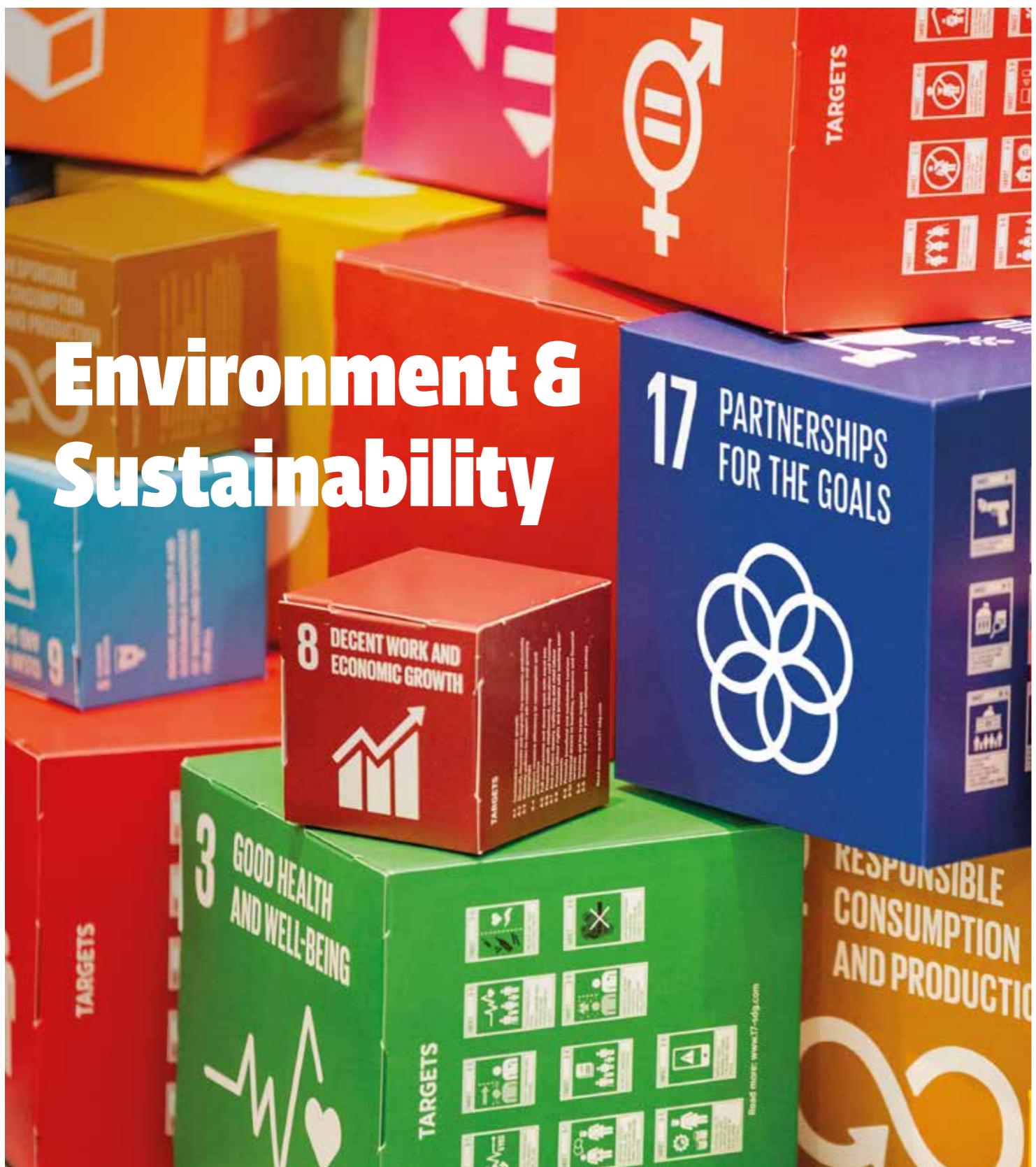
- Funds excluding NEFCO equity
- NEFCO equity (incl. committed paid-in capital)
- ◆ No of Trust Funds assignments





Our environmental status report is available in the Annual Report 2018 [www.nefco.org](http://www.nefco.org)

# Environment & Sustainability



**NEFCO works primarily on contributing to the following UN Sustainable Development Goals (SDGs):**

#### **Goal 6: Clean Water and Sanitation**

NEFCO has financed a number of projects related to wastewater management through its Investment Fund and dedicated trust funds, primarily projects that reduce discharges of nutrients into the Baltic Sea. Apart from addressing the removal of nutrients from wastewater, NEFCO assesses other environmental threats such as the abundance of pharmaceuticals and persistent organic pollutants and how to reduce such substances in wastewater.

#### **Goal 7: Affordable and Clean Energy**

A significant part of our financing operations relates to energy efficiency and renewable energy. We have facilitated and implemented various projects in Eastern Europe in particular, improving energy security and helping the countries reach their emission targets. Energy-related projects have also been realised through the Nopef funding programme, the Climate Funds, and the Arctic and Barents regional programmes.

#### **Goal 9: Industry, Innovation and Infrastructure**

NEFCO enables the internationalisation and scaling up of Nordic green companies through both Nopef and its global mandate. These projects focus on innovative solutions that help industries or service providers to save or utilise resources more efficiently and reduce pollution. In industrial projects, NEFCO attaches great importance to resource efficiency that can translate into efficient use of raw materials such as metals, chemicals and water.

#### **Goal 13: Climate Action**

NEFCO contributes to climate mitigation and adaptation in many of its activities. Our energy-efficiency, renewable energy and Climate Fund projects have a direct impact on greenhouse gas emissions. By financing fea-

sibility studies and demonstration projects in the Arctic and Barents regions, we pave the way for the implementation of BAT-BAP policies and larger-scale impact.

#### **Goal 17: Partnership for the Goals**

NEFCO works in close co-operation with donors, other financial institutions and customers to create blended finance opportunities, catalyse funds and projects, and enable projects to be implemented utilising best practices from the Nordic countries. We provide risk financing for small projects, growth-phase companies and risky geographical areas, thus supplementing financing offered by the larger IFIs and other financiers. We connect stakeholders and various financiers such as the EU, E5P, NDEP and Nordic governments to relevant projects. In 2018, NEFCO became the first Nordic institution to be accredited by the Green Climate fund (GCF).

**Additionally, NEFCO's activities contribute to the following goals:**

#### **Goal 8: Decent Work and Economic Growth**

Internationalisation of Nordic small and medium-sized companies contributes to green growth and increased employment. We emphasise Nordic values, company culture, CSR regulations and equality in the project countries. Climate-related projects in emerging markets help to improve working conditions and economic growth. Through our global mandate, we can offer risk capital to Nordic companies seeking to scale up their operations globally.

#### **Goal 11: Sustainable Cities and Communities**

Investments in the public sector, e.g., in energy efficiency, district heating and street lighting, as well as water and waste management contribute to the goal of creating safer, healthier and more sustainable cities and communities and prosperity for their inhabitants. NEFCO-financed projects ena-

ble municipalities and cities to utilise Nordic solutions based on best practices and technologies.

#### **Goal 12: Responsible Consumption and Production**

The Cleaner Production Facility (CPF) facilitates projects to reduce industrial pollution through efficient resource and energy utilisation in both the public and the private sector in Eastern Europe. The on-lending programmes for the banking segment promote more sustainable habits among consumers. We have also financed many Nordic companies going global with solutions for more sustainable production methods and use of natural resources in various industry segments, e.g. the food industry and plastic recycling.

#### **Goal 14: Life Below Water**

The ecological state of the Baltic Sea has been a main priority since NEFCO was established by the Nordic countries. BSAP Fund projects are aimed at reducing discharges of phosphorus and nitrogen mainly from wastewater treatment plants and agriculture. NEFCO has obtained Observer status at HELCOM. Investment projects related to fish farming and new ways of protein production contribute to combatting overfishing and pollution.

#### **Goal 15: Life on Land**

By facilitating and implementing environmental projects such as waste management, pollution reduction and improved forestry management, NEFCO also contributes to improved conditions for life on land. Several projects in the Arctic region have a strong emphasis on biodiversity.

Focus area

# Green Growth in 2018



71 Nordic SMEs  
granted funding  
for internationali-  
sation



Nopef projects  
creating 400 new  
jobs annually



4 new global  
investments  
approved



NEFCO facilitates green growth by providing risk capital, grants and environmental verification through its Investment Fund, the Nordic Project Fund (Nopef) and dedicated instruments such as the Cleaner Production Facility in certain segments and geographical areas. The objective is to support the scaleup of Nordic smart, green solutions globally and to create positive environmental impact.

In the beginning of 2018, NEFCO established the financing scheme NEFCO Global under its Investment Fund activities. The objective of this financing, aimed primarily at Nordic SMEs and mid-cap companies, is to support the internationalisation of Nordic environmental technologies and climate solutions by providing loans or equity-type financing for business development and expansion on global markets.

The first projects approved under NEFCO Global include Loundspring Plc, an industrial group focused on investments and ownership in Nordic growth

businesses that have a big environmental impact. NEFCO's financing will be used to accelerate growth outside Europe of Loundspring's selected portfolio companies active in the areas of energy and resource efficiency. Another project developed during the year with the Swedish investment entity Baseload Capital is a financing programme to accelerate the building and deployment of heat power plants on a global scale (see case on page 13). These projects are expected to result in significant CO<sub>2</sub> reductions as well as economic benefits and to contribute to scaling up Nordic green technology on global markets.

Nopef, funded by the Nordic Council of Ministers and managed by NEFCO, is also an important instrument for green growth. In 2018, the fund approved financing to 71 new feasibility studies that will be carried out in 30 countries across all the continents by Nordic SMEs. The approved projects aim to facilitate the internationalisation of Nordic green innovations and climate solutions, with potential future green investments in the targeted project countries totalling EUR 200 million.



Photo: joel Sheakoski for NEFCO

## CASE:

### Small steps can lead to giant leaps

During the year, we have increased our outreach to promising Nordic technology and energy companies in the green sector. At the UN's climate conference COP 24 in Katowice, we hosted a side event on the Nordic Finance day under the theme 'Small steps can lead to giant leaps - Scaling up green investments in the energy field'. We have also promoted our services and role in scaling up Nordic green solutions at various conferences and events during the year, including at the Nordic Clean Energy Week in Copenhagen and Malmö; the Green to Scale event in Kyiv, Ukraine; the start-up and investor event SLUSH in Helsinki and the Cleantech Venture Day in Lahti.

Photo: Benedikt Stefansson, Business Director at Carbon Recycle International, Iceland, speaking at NEFCO's event on the Nordic Pavilion at COP24. See video on [www.nefco.org](http://www.nefco.org)

Focus area

# Climate in 2018



3.9 million tonnes  
direct CO<sub>2</sub> + CER  
reduced



400 schools,  
day-care centres  
and hospitals ren-  
ovated in Ukraine



Benefitting directly  
over 170,000  
people in Ukraine  
since 2010



To support climate change mitigation and adaptation initiatives, NEFCO mobilises new investments and funding for projects related to renewable energy, energy efficiency and the reduction of short-lived climate pollutants and greenhouse gas emissions in close co-operation with governments, municipalities, companies and other organisations.

Energy-efficiency measures make up the largest single category of NEFCO's climate-related investments. There has also been a positive increase in the number of projects related to renewable energy production, resource efficiency and circular economy. Moreover, public energy-efficiency projects generate not only environmental benefits but also positive economic returns to the municipalities and prosperity for their inhabitants.

In November 2018, the sale of Nelja Energia AS, a Norwegian renewable energy producer and developer in the Baltic countries, was finalised. Enefit Green, the renewable energy arm of the Estonian state-owned energy group Eesti Energia, completed its acquisition of Nelja Energia after the competition authorities had

approved the merger. Prior to the acquisition, Nelja Energia was owned by Vardar Eurus AS, in which NEFCO had a 10% equity share, and minority shareholders. This investment contributed a large share of the environmental impact in our project portfolio and, as a result of the exit, total emission reductions will decrease somewhat from 2018 onwards.

In 2018, climate-related investments led to reduced carbon dioxide emissions by 1.26 million tonnes of CO<sub>2</sub> directly, of which NEFCO's share was 12% or 154,694 tonnes.

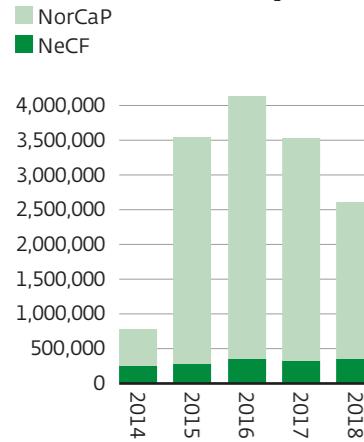
## Climate Funds

Since 2003, NEFCO has administered carbon credit funds worth a total of about EUR 300 million, for both private and public sector contributors. Currently, NEFCO manages two climate funds for the purchase of carbon credits. The purpose of the NEFCO Carbon Fund (NeCF), in operation since 2008, has been to fund environmental projects that meet Kyoto Protocol joint implementation or Clean Development Mechanism (CDM) requirements. Through its ongoing projects, the fund delivered 0.3 million carbon credits to its investors in 2018.

The Norwegian Carbon Procurement Facility (NorCaP) was set up using Norwegian funding in 2013 and is primarily aimed at procuring emission rights during the second commitment period of the Kyoto Protocol (2013–2020) from UN-approved projects that are at risk of being stopped due to the low market prices for carbon credits. NorCaP reached its goal of 30 million credits at the end of 2015. At the end of 2018, NorCaP delivered 2.3 million carbon credits to Norway through its active projects.

During 2018, NEFCO managed a total portfolio of 21 active climate fund projects within different sectors across nine countries. These projects delivered 2.6 million carbon credits to investors. Whilst one CER equals one tonne of CO<sub>2</sub>, the total emission reductions in 2018 correspond to 2,611,589 tCO<sub>2</sub>. Since NEFCO's climate fund work began, a total of 21.3 million carbon credits have been delivered through these funds.

To continue Nordic climate collaboration, a new Nordic Initiative for co-operative approaches (NICA) was established in 2018. The aim of NICA is to contribute to ongoing efforts in order to develop and possibly test ways to implement Article 6 of the Paris Agreement.

**Emission reductions tCO<sub>2</sub>****Project types based on CER volumes**

Includes also projects that have ended but still leverage CERs (Certified Emission Reductions)

**Waste handling and disposal**

19 046 756 CER (71%), 4 projects

**Chemical industries**

4 050 000 CER (15%), 7 projects

**Energy industries**

19 601 136 CER (7%), 12 projects

**Metal production**

11 800 000 CER (4%), 1 project

**Energy demand**

644 076 CER (2%), 2 projects

**CASE****Support to develop the waste management sector in Peru**

Within the framework of the Nordic Partnership Initiative on Upscaled Mitigation Action (NPI), we have worked on Nationally Appropriate Mitigation Actions (NAMAs) to support developing countries in designing and implementing mitigation actions and attracting funding from international climate finance and carbon markets.

In Peru, the initiative focused on building readiness for mitigating greenhouse gas emissions in the solid waste sector.

The project completed its first phase in August 2015. The second phase, involving several smaller consulting assignments supporting the implementation of the sector programme and the Paris Agreement in the waste sector in Peru, started in 2016 and was completed in 2018. The work was financed by NEFCO, Norway, Sweden, Finland and Denmark with a local in-kind contribution.

The initiative generated comprehensive information on the sector's status

and trends in terms of waste and emissions, mitigation potential and costs, and barriers to action. Mitigation plans for landfills were prepared, a robust information system developed, and policy reforms introduced for recognising waste as a valuable raw material. The NPI results have been integrated into national and local development plans and serve as valuable building blocks in the design and implementation of Peru's mitigation pledges under the Paris Agreement.



Focus area

# Arctic & Barents in 2018



One Arctic project completed, five under implementation



12 projects related to the Barents region completed

In the Arctic and Barents regions, NEFCO provides financing mainly through four different instruments for project preparation activities, feasibility studies and demonstration projects. The aim is to further develop and disseminate the best available technologies and practices (BAT-BEP) to reduce short-lived climate pollutants (SLCP) from APC flaring. Another study, initiated by Conservation of Arctic Flora and Fauna (CAFF), will look into the effects of plastic pollution on Arctic seabirds (see case story on page 31).

The Arctic Council Project Support Instrument (PSI), a grant-funding mechanism managed by NEFCO, is available to projects by all of the Arctic Council's working groups in the fields of reducing black carbon and CO<sub>2</sub> emissions, hazardous waste management, and enhancing biodiversity, among others.

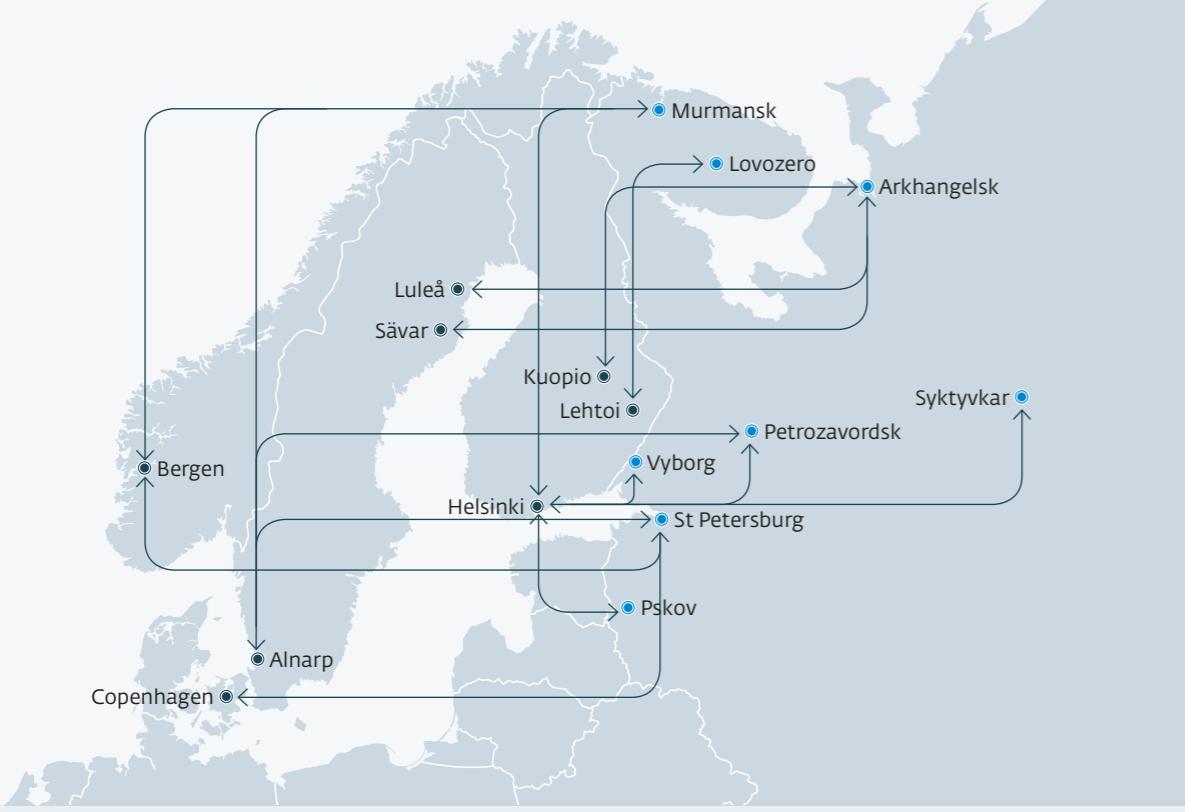
In 2018, an evaluation study initiated by the Arctic Contaminants Action Pro-

gram (ACAP) and related to the project 'Mitigation of black carbon and methane emissions from APC flaring in the Arctic Zone' was completed. The following phase aims to demonstrate the best available technologies and practices (BAT-BEP) to reduce short-lived climate pollutants (SLCP) from APC flaring. Another study, initiated by Conservation of Arctic Flora and Fauna (CAFF), will look into the effects of plastic pollution on Arctic seabirds (see case story on page 31).

The main aim of the Barents Hot Spots Facility (BHSF) is to promote relevant actions and investments at the environmental 'hot spots' identified in north-west Russia. NEFCO works in close collaboration with the responsible Russian authorities, the project owners and the Swedish Chair of the Barents Working Group on Environment (WGE) and its Subgroup on Hot Spot Exclusion (SHE). Funds are allocated primarily to expert and feasibility studies, and other technical assistance. The Facility also co-finances the adviser on issues of climate, environment and 'hot spots' at the International Barents Secretariat in Kirkenes.

Special focus areas for the BHSF during 2018 have been municipal waste and remediation of oil-contaminated land, as well as issues concerning forests, biodiversity and specially protected territories. NEFCO also follows the development very closely in Northwest Russia to promote pilot actions in the region linked to, for instance, the newly established regional systems for municipal waste management as well as the National Project 'Ecology' and the list of 300 'Category-1' main polluters that were defined at federal level in 2018. In addition, BHSF-funded seminars were held in Moscow and Syktyvkar on the theme of the introduction of BAT (Best Available Technology) in Russia for decision-makers, managers and experts linked to 'hot spots'. 'Hot spots' are excluded every second year and therefore none was excluded in 2018.

NEFCO also acts as implementing agency for the Northern Dimension Environmental Partnership (NDEP) initiative, which provides grant funding for projects in waste management and soot emissions in Northwest Russia.



#### CASE

## Nine PECC projects were completed in 2018

The Programme for Environment and Climate Co-operation (PECC), managed by NEFCO, provides grant financing, with co-financing requirements, to encourage and promote Nordic-Russian non-commercial co-operation projects addressing environment and climate at regional and local levels in Northwest Russia. The first nine PECC project were implemented and completed by the end of 2018.

Among the Nordic Lead Partners, Finnish organisations had four projects, Swedish three, and Norwegian and Danish: one each. In terms of the types of

entities, universities and research institutions were the most common types. Project activities were carried out in Arkhangelsk Oblast, the Komi Republic, Leningrad Oblast, Murmansk Oblast, the Republic of Karelia, and in St Petersburg. Several NGOs took active part on the Russian side.

The implementation of the PECC projects has resulted in a number of important reports and scientific as well as practical results of high value, while building up and maintaining networks between relevant Nordic and Russian counterparts. The main success criteria

as stipulated by the Nordic Council of Ministers have thus been met:

- The projects contribute to environmental and climate-related improvements in Northwest Russia;
- Relevant partners of the Nordic countries and Northwest Russia, including authorities and NGOs, are involved in the co-operation;
- Relevant networks become established or strengthened.

The geographic focus and the networking aspects of the PECC activities are illustrated in the picture. Preparations for a possible "PECC-2" have started.

#### CASE:

## Studying the effects of plastic pollution on Arctic seabirds

Seabirds can indicate the health of the oceans, lands, coasts and freshwater systems in the Arctic and around the world. Their rapid decline is an alarming concern and reflects the declining quality of many ecosystems, not only for the seabird and sea duck species, but also for people across the planet. Increasing concentrations of macro- and micro-plastics have been found in Arctic waters and sea ice, but the impacts of plastics pollution on Arctic environments and species have not yet been widely studied.

The Arctic Migratory Birds Initiative (AMBI) of the Arctic Council's Conservation of Arctic Flora and Fauna (CAFF) working group seeks to address specific threats to Arctic-breeding migratory birds focusing on four flyways. In 2018, the Arctic Council Project Support Instrument (PSI) approved funding for an AMBI project, in co-operation with the Circumpolar Seabird Expert Group (CBird), that

studies the effects of plastic pollution on Arctic seabirds such as the Northern fulmar, Thick-billed murre, and Common eider, which spend most of their lifecycle in the Arctic, migrating east-west rather than north-south. The approved funding will support improving knowledge on the mitigation of habitat degradation in the Arctic and in particular, will aim to scale up existing work in AMBI's Circumpolar Flyway, and inform a Pan-Arctic plastic pollution monitoring programme using seabirds as indicator species.

Through the PSI, NEFCO currently also supports ongoing work by CAFF in the East Asian-Australasian Flyway, which is the most threatened flyway, as well as the African-Eurasian Flyway. The Arctic Migratory Birds Initiative is an important mechanism for strengthening the co-operation between the Arctic States and the Arctic Council Observer states.



AMBI and the co-operation with the PSI are a great example of how we can work together to scale up activities and have on-the-ground impacts to address biodiversity conservation and pollution issues across the Arctic and beyond."

Tom Barry  
CAFF Executive Secretary



Focus area

# Baltic Sea in 2018



Five projects completed



Reductions of  
979 tonnes P-tot  
and 4,498 tonnes  
N-tot in 2018

The reduction of pollutants affecting the Baltic Sea has been a key priority for NEFCO since its very beginning. We finance both public and private sector projects related to agriculture, wastewater treatment and hazardous waste within the Baltic Sea catchment area through various programmes.

Through our own Investment Fund and the Cleaner Production Facility, we invest in projects that are mainly related to agriculture, fishery, wastewater treatment and hazardous waste management. Two projects were completed in 2018: the wastewater treatment plant OKOS in Kaliningrad and an oat mill farm operated by Finnish company Myllyn Paras in Russia.

Another programme, the Baltic Sea Action Plan Fund (BSAP Fund), jointly managed by the Nordic Investment Bank (NIB) and NEFCO, provides grants for technical

assistance to projects that support the implementation of the HELCOM Baltic Sea Action Plan (BSAP). A key purpose of the fund is to facilitate and speed up the preparation of bankable projects in the Baltic Sea catchment area. In 2018, three projects ended and two projects were under implementation. The Kohila Maja project led to wastewater infrastructure investments in Aespa and the Vilivere village area in Estonia.

As a result of the work done around the Baltic Sea region, the projects have led to reduced discharges of phosphorus from wastewater treatment plants by 941 tonnes in 2018, when taking into account the whole projects, and phosphorous discharges removed from agriculture by 38 tonnes. The total phosphorous discharge reduction of 979 tonnes translates into discharges of untreated wastewater from approx. 1.34 million people. NEFCO's pro rata share of the reduction is 194 tonnes P/year equalling wastewater from approx. 267,000 people. The corresponding figure for nitrogen was 4,498 tonnes N/year and NEFCO's share 890 tonnes N/year.

# Financing options

NEFCO finances green growth and climate-related projects all over the world. Our financing options include loans, grants, equity-type financing and buyer credits, depending on the scope and the location of the project. We manage several trust funds and initiatives funded by the Nordic governments, the Nordic Council of Ministers and Arctic Council members. NEFCO is also an accredited implementing agency for, among others, the European Union, E5P, the Northern Dimension Environmental Partnership and the Green Climate Fund. By combining different financing sources available to us, we leverage and make green projects feasible and bankable.



Read more about our financing and fund mobilisation on [www.nefco.org](http://www.nefco.org)



## Financing options offered by NEFCO:

- **Loans and equity** – up to EUR 5 million to public and private sector projects in our core countries of operation (Armenia, Belarus, Estonia, Georgia, Latvia, Lithuania, Moldova, Poland, Russia and Ukraine)
- **Loans and equity-type financing** – up to EUR 2.5 million to Nordic SMEs and mid-caps for green projects carried out on global markets outside the Nordic countries
- **Buyer credits** – up to EUR 5 million for delivery of environmentally sustainable products, machinery or services to Eastern Europe
- **Soft loans** – approx. EUR 100,000 to EUR 400,000 to public sector projects in Eastern Europe
- **Grants** – currently provided through 39 trust funds
- **Grants for internationalisation** – up to EUR 50,000 to Nordic SMEs and mid-cap companies for feasibility studies outside the EU/EEA area



## Main green growth-related financing instruments:

### NEFCO Investment Fund and the Nordic Environmental Development Fund (NMF):

- Contributors: the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden)
- Loan and equity-type financing for public and private projects, mainly related to energy efficiency and renewable energy, or cleaner industrial processes
- For investments in Eastern Europe and on global markets, outside the Nordic countries
- Buyer credits to Nordic companies for delivery of environmentally sustainable products, machinery or services to Eastern Europe
- Cleaner Production Facility (CPF) – loan financing for efficient resource and energy utilisation in industrial plants in Eastern Europe

### Nordic Project Fund (Nopef)

- Contributor: Nordic Council of Ministers
- Grants for feasibility studies for the internationalisation of Nordic SMEs
- Outside the EU/EEA region



## Main climate-related financing instruments:

### NEFCO Investment Fund and Nordic Environmental Development Fund (NMF)

- Contributors: the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden)
- Loan and equity-type financing for public and private projects mainly related to energy efficiency and renewable energy in Eastern Europe and on global markets, outside the Nordic countries
- Energy Savings Credits (ESC) – soft loans for energy-savings measures in public buildings such as schools and hospitals, and street lighting in Eastern Europe
- Can be blended with dedicated grant funding from, e.g. the EU, E5P, and the Nordic countries

### The Nordic Energy Efficiency and Humanitarian Support Initiative for Ukraine (NIU)

- Contributors: the Nordic countries
- Primarily grant financing for the refurbishment and reconstruction of municipal buildings in the war-torn, vulnerable areas of eastern and southern Ukraine.

## Climate funds

### NEFCO Carbon Fund (NeCF)

- Investors: Danish Energy Agency, Ørsted A/S (DK), Eesti Energia (EE), Electrabel (BE), EPV Energy (FI), the Finnish Ministry of Foreign Affairs, Industrialiseringsfonden for Udviklingslandene (IFU) or the Industrialisation Fund for Developing Countries (DK), Kymppivoima (FI), the Norwegian Ministry of Climate and Environment, Vapo (FI) and NEFCO
- For environmental projects that meet Kyoto Protocol joint implementation or Clean Development Mechanism (CDM) requirements
- Currently, 12 projects in China, Indonesia, Vietnam, Ethiopia and Mozambique

### NEFCO Norwegian Carbon Procurement Facility (NorCap)

- Investors: Norwegian Ministry of Climate and Environment
- For UN-approved projects that contribute emission rights
- Currently, nine projects in Brazil, South Africa, Colombia and Mexico



## Main Arctic & Barents related financing instruments:

### Arctic Council Project Support Instrument (PSI)

- Contributors: Finland, Iceland, Norway, Russia, Sami Parliament of Norway, Sweden, the USA and NEFCO

### Barents Hot Spots Facility (BHSF)

- Contributors: Finland, Iceland, Norway, Sweden and the Nordic Environmental Development Fund, which include contributions from all Nordic countries, the Nordic Council of Ministers and NEFCO

### Programme for Environment and Climate Co-operation (PECC)

- Contributors: Nordic Council of Ministers and the BHSF fund

### Northern Dimension Environmental Partnership (NDEP)

- Contributors: Belarus, Belgium, Canada, Denmark, Finland, France, Germany, Netherlands, Norway, Russia, Sweden and the United Kingdom



## Main Baltic Sea -related financing instruments:

### NEFCO Investment Fund and the Nordic Environmental Development Fund (NMF)

- Contributors: Denmark, Finland, Iceland, Norway and Sweden
- Loan and equity-type financing for public and private projects, mainly related to agriculture, fishery and wastewater treatment, as well as efficient resource and energy utilisation, to help reduce pollution of the Baltic Sea
- In the Baltic Sea catchment area

### Baltic Sea Action Plan Fund (BSAP Fund)

- Contributors: Finland and Sweden
- Grants for technical assistance to projects that support the implementation of the HELCOM Baltic Sea Action Plan (BSAP) and contribute to project development and implementation, e.g. in the agricultural, wastewater or hazardous waste sectors to catalyse larger projects

# Governance

NEFCO is an international financial institution established in 1990 by the governments of Denmark, Finland, Iceland, Norway and Sweden. The structure of the Board of Directors and Control Committee reflects the ownership of NEFCO.



## Board of Directors 2018

### DENMARK

#### **Søren Bukh Svenningsen**

Vice Director, Environmental Protection Agency/Ministry of Environment and Food

### Alternate

#### **Morten Kruse**

Global Anchor – Financing and High Value Projects, Ministry of Foreign Affairs (from April 2018)

### FINLAND

#### **Ann-Britt Ylinen**

Director, Ministry of the Environment (until August 2018)

### Ismo Tiainen

Director General, Ministry of the Environment (from September 2018)

### Alternate

#### **Kristiina Isokallio**

Director, Ministry of the Environment (until September 2018)

### Alternate

#### **Sannamaaria Vanamo**

Deputy Director General for Eastern Affairs, Ministry for Foreign Affairs (from October 2018)

### ICELAND

#### **Danfríður Skarphéðinsdóttir**

Head of Division, Ministry for the Environment and Natural Resources

### Alternate

#### **Íris Bjargmundsdóttir**

Head of Division, Ministry for the Environment and Natural Resources

### NORWAY

#### **Harald Rensvik**

Secretary General, Ministry of Climate and Environment (until March 2018)

### Anne Berteig

Senior Adviser, Ministry of Climate and Environment (during April–October 2018)

### SWEDEN

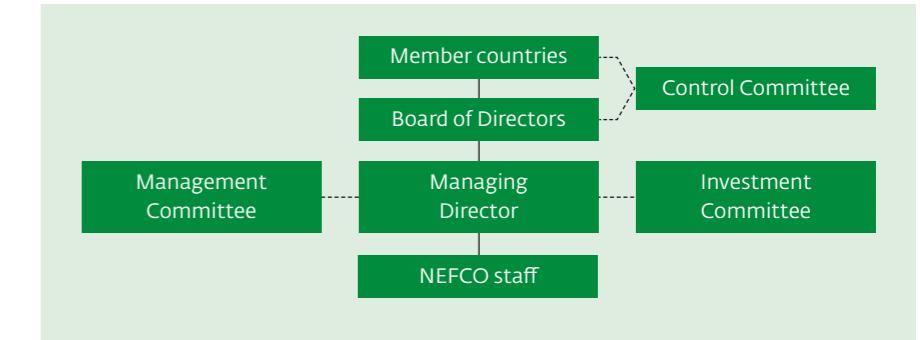
#### **Jessica Andersson, Chair**

Senior Advisor, Ministry of the Environment and Energy



Board of Directors

Photo: Veikko Somerpuro for NEFCO



### Alternate

#### **Agnetha Dahl**

Deputy Director General, Ministry of Climate and Environment (from October 2018)

### Alternate

#### **Ingrid Lillehagen**

Senior Adviser, Ministry of Climate and Environment (during April–September 2018)

### Alternate

#### **Jon Opem**

Senior Adviser, Ministry of Climate and Environment (from September 2018)

### SWEDEN

#### **Jessica Andersson, Chair**

Senior Advisor, Ministry of the Environment and Energy

### Alternate

#### **Gabriel Hjort**

Desk Officer, Ministry for Foreign Affairs

### Observers

#### **Björn Fritjofsson**

Senior Adviser, Nordic Council of Ministers (until March 2018)

#### **Anders Hedberg**

Senior Adviser, Finance, Nordic Council of Ministers (from April 2018)

#### **Søren Kjær Mortensen**

Senior Director, Head of Origination, Nordic Investment Bank

## **Control Committee 2018**

**Bill Fransson**  
Chairman  
Director (until 7.3.2018)

**Jan-Erik Enestam**  
Chairman  
Minister, Independent  
Consultant (from 8.3.2018)

**DENMARK**  
**Sjúrður Skaale**  
Member of Parliament

**FINLAND**  
**Arto Pirttilahti**  
Member of Parliament

**ICELAND**  
**Vilhjálmur Árnason**  
Member of Parliament

**NORWAY**  
**Michael Tetzschner**  
Member of Parliament

**SWEDEN**  
**Staffan Danielsson**  
Member of Parliament (until 26.12.2018)

**Johan Andersson**  
Member of Parliament (from 27.12.2018)

**AUDITORS**  
**Terhi Mäkinen**  
Secretary to the Control Committee,  
Partner, Authorised Public Accountant  
Ernst & Young, Finland

**Mona Alfredsson**  
Partner, Authorised Public Accountant  
Ernst & Young, Sweden

## **Personnel 2018**

**Magnus Rystedt**  
Managing Director  
(until the end of May 2019)

**Husamuddin Ahmadzai**  
Special Adviser, Environment and  
Technology (until March 2019)

**Mia Alén**  
Financial Controller

**Tita Anttila**  
Vice President, Head of Legal and  
Project Administration, Chief Counsel

**Vivi Avikainen**  
Project Officer

**Amund Beitnes**  
Senior Investment Manager

**Ulf Bojö**  
Senior Investment Manager

**Nelly Eriksson**  
Assistant (from February 2019)

**Aliona Fomenko**  
Project Manager

**Henrik Forsström**  
Senior Adviser

**Dennis Hamro-Drotz**  
Investment Manager

**Josefin Hoviniemi**  
Communications Manager  
(since April 2018)

**Kari Hämekoski**  
Manager

### **Andriy Katashov**

Technical Adviser – Representative  
Office in Kyiv, Ukraine

### **Ritva Kauppi**

Senior Legal Counsel

### **Helle Lindsgaard**

Vice President, Head of Trust Funds  
and Climate

### **Iryna Fedorenko**

Investment Adviser –  
Representative Office in Kyiv, Ukraine

### **Tetiana Lytvyn**

Investment Specialist –  
Representative Office in Kyiv, Ukraine

### **Helena Lähteenmäki**

Senior Investment Manager

### **Trond Moe**

Executive Vice President,  
Head of Investment Operations

### **Ronny Nilsson**

Senior Adviser

### **Tina Nyberg**

Project Officer

### **Bo Eske Nyhus**

Senior Investment Manager

### **Anja Nystén**

Senior Manager,  
Head of Environment and Technology

### **Lia Oker-Blom**

Communications and Administration  
Officer



### **Søren Rasmussen**

Project Officer

### **Mikael Reims**

Senior Manager, Head of Origination  
and Communications

### **Bia Saarinen**

Assistant / Paralegal

### **Maija Saijonmaa**

Project Manager

### **Julia Shevchuk**

Chief Investment Adviser –  
Representative Office in Kyiv, Ukraine

### **Heli Sinkko**

Project Manager

### **Tua Skand**

Financial Controller

### **Mia Ståhle-Lauritzon**

Financial Controller / Financial Analyst

### **Thor Thorsteinsson**

Senior Financial Manager

### **Marina Westerholm**

Executive Assistant to

the Managing Director

NEFCO's personnel during an  
internal meeting in April 2018.



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