A close-up photograph of a vibrant green leaf, likely a maple leaf, with several clear water droplets resting on its surface. The leaf's veins are clearly visible, and the background is softly blurred, showing more greenery and a hint of a blue sky. The overall tone is fresh and natural.

NEFCO'S Cleaner Production Facility



Nordic Environment Finance Corporation



Cleaner Production Facility

The NEFCO Cleaner Production Facility, which was established in 1996, is a loan programme, which sorts under the Nordic Environment Development Fund (NMF), and is intended to promote the reduction of industrial pollution through efficient resource and energy utilization.

The overall objective of the facility is to utilize positive examples of 'win-win' projects situations in order to instill a mindset compatible with sustainable forms of production in industry and other sectors. The main criterion for each project approved under the scheme is that it should generate clear and measurable environmental benefits. Cleaner production is generally achieved by upgrading technology and production methods.

Currently the Nordic Environment Development Fund (NMF), has funds in excess of EUR 60 million and has approved over 200 projects since its inception.

NEFCO offers Cleaner Production Credits on favorable terms to both private and public enterprises and loan repayments are directly linked to savings generated from the investment.

Terms and conditions

LENDER	Nordic Environment Finance Corporation (NEFCO).
BORROWER	Private or public enterprise from Russia, Ukraine or Belarus.
ELIGIBILITY CRITERIA	Modernization or reconstruction of existing production facilities and processes to generate positive environmental effects using proven technological techniques.
LOAN AMOUNT	Maximum loan amount EUR 350,000 with NEFCO capable of financing up to 90% of total project cost.
MAXIMUM REPAYMENT PERIOD	Up to 5 years.
PAYBACK PERIOD OF INVESTMENT	Up to 4 years. Project payback is calculated by dividing the total project cost with the anticipated annual cost savings generated from it.
INTEREST RATE	Fixed at 6% per annum (in EUR) and 9% per annum (in RUB) and tied to the duration of the facility. No commission or other fees.
CURRENCY	EURO and Russian Rubles (for Russia). Lending in local currencies is under consideration.
SECURITY	125% of the loan amount. Property, equipment, bank or municipal guarantees accepted.
DISBURSEMENT	The loan is disbursed to the borrower's account in three tranches according to the project implementation schedule and respective contractual obligations of the borrower. NEFCO can directly disburse to the borrower's approved bank.
REPAYMENT SCHEDULE	The credit shall be repaid in equal quarterly installments with the first payment being commenced approximately 3 months after project completion. Payment have to be made to NEFCO's bank account in Helsinki.
LEGAL SUPPORT, MONITORING AND REPORTING SERVICES	The legal costs are covered by NEFCO.
BORROWER COSTS	Preparation of business plan, registration, insurance and valuation of pledged assets.
PROCUREMENT	Procurement of goods and services financed by NEFCO shall be open and fair.
DURATION OF PROCESS	The process from application to the first disbursement of the loan can take up to 6 months.

Examples of NEFCO-financed Cleaner Production (CP) projects

Case 1

Customer: Wood working factory
Project description: New wood- waste boiler house and wood- drying chambers.

Investment **EUR 349,000.**
NEFCO share **EUR 296,000**

Annual savings: EUR 140,000 PBT = 2.5 years

Case 2

Customer: Ancillary power generation plant
Project description: Installation of gas -driven CHP (Combined Heat and Power) for the investor's own power requirement and sale of heat to a public swimming pool at the district heating utility.

Investment **EUR 385,000**
NEFCO share **EUR 350,000**

Annual savings: EUR 109,000 PBT=3.5 years

Case 3

Customer: Power generation plant
Project description: Renovation of 5 boiler houses supplying heat to a hospital, polyclinic, kindergarten and secondary school through an ESCO arrangement.

Investment **EUR 558,000**
NEFCO share **EUR 350,000**

Annual savings: EUR 242,000 PBT = 2.3 years

Case 4

Customer: Bakery
Project description: Replacement of baking oven

Investment **EUR 450,000**
NEFCO share **EUR 350,000**

Annual savings: EUR 112,000 PBT = 4.0 years

Case 5

Customer: Farm
Project description: Installation of a bio-diesel production plant using rapeseed

Investment **EUR 285,000**
NEFCO share **EUR 175,000**

Annual savings: EUR 73,000 PBT = 3.9 years

Case 6

Customer: Electric-bulb production company
Project description: Installation of new glass melting oven

Investment **EUR 349,000**
NEFCO share **EUR 315,000**

Annual savings: EUR 100,000 PBT = 3.5 years

Case 7

Customer: Biscuit factory
Project description: Replacement of oven gas burners

Investment **EUR 390,000**
NEFCO share **EUR 350,000**

Annual savings: EUR 131,500 PBT = 3 years

Case 8

Customer: Margarine factory
Project description: Installation of energy efficient edible fats and oils production plant

Investment **EUR 430,000**
NEFCO share **EUR 350,000**

Annual savings: EUR 112,460 PBT = 3.8 years

The application process

Project proposal

A short two-page project proposal conforming to a standardized format is submitted to NEFCO.

Business plan

After NEFCO has assessed the project proposal and approved it, the applicant is asked to present a business plan, which is examined by its Investment Committee. The decision on whether the loan application is approved or not normally takes about one month.

Due diligence made by NEFCO consultants

The applicant is requested to supply a documentation package, which will be analyzed by NEFCO consultants.

Loan agreement

If the project proposal and the business plan are approved, NEFCO and the borrower sign a loan agreement. A pledge/ guarantee agreement is also normally signed at this stage.

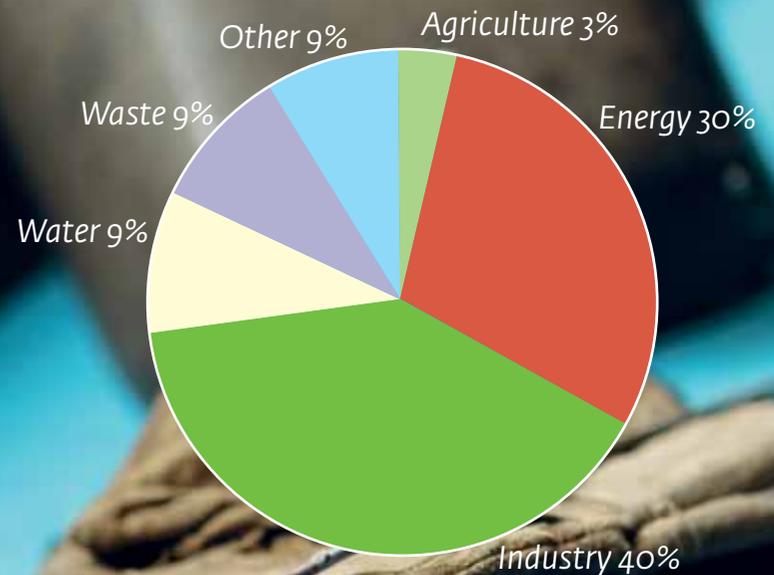
Loan disbursement

Upon fulfilment of all the required conditions by the borrower, the loan is disbursed in three tranches.

Environmental, financial, legal reporting

The borrower is required to supply annual reports on the project's environmental effects, the financial state of his company and other relevant information.

Distribution of CP loans managed by NEFCO





Replacement of furnaces in St. Petersburg

Neva Ferrit Ltd, headquartered in St. Petersburg in Russia, is a subsidiary of Ferroprigor which manufactures a wide range of ferromagnetic products for the Russian metal industry.

NEFCO's loan enabled the company to purchase a new furnace. It was installed the very same year as the loan was disbursed, replacing thirteen old furnaces. The finance was provided from NEFCO's Revolving Facility for Cleaner Production.

This investment reduced Neva Ferrit's carbon dioxide emissions by approximately 430 tonnes per year from the time that the new furnace became operational. And, thanks to lower energy consumption, Neva Ferrit Ltd now saves about EUR 179,000 per year, which enabled it to comfortably service its NEFCO loan. The total investment cost of this project was EUR 490,000.



From heating oil to natural gas

NEFCO's Facility for Cleaner Production has financed a comprehensive project involving the modernization of 16 boiler plants in the vicinity of St. Petersburg. The aim of the project was to improve the overall heat-supply and stability in the Volosovskiy district located in the Leningrad region. NEFCO's loan was earmarked for the refurbishing of two boiler houses together with the Russian company, BaltKotloMash LLC.

Other financiers included the Danish companies Dantrim, Eurotherm and the Danish environmental ministry. In practice, the investment was targeted at a transition from heavy fuel oil or coal to natural gas, which reduced the emission of carbon dioxide by about 105,000 tonnes per year. NEFCO's share of the emission reductions is 9,700 tonnes per year.

Apart from environmental benefits, the project has also generated substantial savings for BaltKotloMash LLC. The total savings of the fuel switch and retrofitting of the installed equipment is EUR 302,000 per year.

"The investment has also improved the air quality in towns affected by the project. The transition from heating oil to natural gas also means reduced emissions of sulphur and soot particles," says NEFCO's Senior Manager Karl-Johan Lehtinen.



Energy efficient production of glass bulbs in Lviv

In 2009 NEFCO's Revolving Facility for Cleaner Production granted a loan to the Ukrainian company Iskra for the modernization of its smelting furnaces, which is expected to save up to 890,000 m³ of gas per year. This has allowed the company to make savings worth EUR 180,500 per year. Smelting furnaces are needed to make glass bulbs and domes. The investment is expected to reduce carbon dioxide emissions by around 452 tonnes per year.

With 2,200 employees, OJSC Iskra is one of the largest employers in the Lviv region in Western Ukraine. Iskra manufactures nearly 230 million incandescent lamps per year, with most of the production exported to a total of 33 countries.

Iskra makes over 300 different products – from fluorescent tubes and incandescent bulbs to car lights, halogen lamps and street lighting systems. Today, approximately 12 per cent of all the lamps made by Iskra are lowenergy light sources. In Ukraine, the company markets its products under the name of Iskra whereas the brand used in most EU countries is Volta.



Rapeseed in the fuel tank

Shevchenko Farmer Enterprise employs around 130 people in Rivne, 2.5 hours drive east of Lviv, in Western Ukraine. The company has used a loan from NEFCO to finance conversion of rapeseed into oil that is subsequently used as bio-diesel fuel in the company's tractors, harvesters and other vehicles.

"Refuelling a vehicle with fossil diesel at a filling station costs 70 to 80 euro cents per litre. But the price of bio-diesel made from the rapeseed or sunflower that we grow in our own fields is only 27 to 30 cents per litre. We save up to EUR 30,000 per year by refuelling with renewable bio-diesel," says the company's CEO Victor Atamanyuk.

About 200 hectares of the company's arable land is used for growing rapeseed which yields an annual harvest of almost 450 tonnes. One tonne of rapeseed will give an average of 350 kg of oil, which results in an annual production of 150 tonnes of bio-diesel. Rapeseed satisfies 75 per cent of the company's fuel requirement, including the executive management's cars.

A tour of the farm shows that all the local resources are put to full use. Pressing of the dried rapeseed yields by-products such as stems and other biomass that can be pelletized and incinerated to produce heat. Part of the stems is also used as animal feed for cows.

And surely, the company's carbon footprint is reduced by the bold investment in local renewable fuels. The project is estimated to decrease carbon dioxide emissions by at least 3,600 tonner per year.

The Nordic Environment Finance Corporation (NEFCO) is an international finance institution, which was established in 1990 by the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden. NEFCO finances a wide range of environmental projects in Eastern Europe, mainly in Russia, Ukraine and Belarus in order to generate positive environmental benefits for the Nordic region.

NEFCO provides financing for projects aimed at reducing environmentally harmful emissions and discharges, such as greenhouse gases and toxic pollutants. Currently, NEFCO's project portfolio of approved projects contains over 400 projects.

Contacts

For further information, please contact:

Russia

Vitaly Artyushenko
Chief Investment Adviser

Mob. +7 911 646 6872
Email: vitaly.artyushenko
@nefco-ru.ru

Alexander Boldyrev
Technical Adviser

Mob. +7 965 012 1212
Email: alexander.boldyrev
@nefco-ru.ru

Nordic Environment
Finance Corporation

Address: Nevsky Prospekt 21
Office 517
Saint Petersburg, 191186
Russia

Ukraine

Julia Shevchuk
Chief Investment Adviser

Mob. +380 50 358 35 18
Email: J.Shevchuk
@nefco.org.ua

Andriy Katashov
Technical Adviser

Mob. +380 96 299 65 70
Email: A.Katashov
@nefco.org.ua

Nordic Environment
Finance Corporation

Address: Velyka Vasylkivska
Street, building 23-B,
section B, offices 212.
Kiev, 01601, Ukraine
Office: + 380 44 287 01 06

NEFCO Head office

Fabianinkatu 34 - P.O. Box 249, FI-00171 - Helsinki,
Finland - Tel. +358 (0)10 618 003.

www.nefco.org



Mixed Sources
Product group made with managed
forests, controlled sources and
recycled material or fibre
Cert no: BSM-COC-001349
www.fsc.org
© 1996 Forest Stewardship Council

Photos: Patrik Rastenberger. This brochure has been printed on FSC-certified paper.