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Information Bulletin published by the Nordic Environment Finance Corporation, NEFCO | December 2010

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Crossing borders in Eastern Europe

TWENTY YEARS WILL SOON have lapsed since the fall of the Iron Curtain in Eastern Europe. The collapse of the Soviet Union in 1991 redrew the political map as well as national borders in one stroke. A divided and politicised Europe building up her military strength for war was transformed into a continent aiming at arms reduction and political stability. At the same time, economic cooperation between Eastern and Western Europe started growing at a steady pace. These developments have benefited the Nordic countries too.

A LARGE NUMBER of Nordic companies have relocated their production facilities to Eastern Europe. A great deal of Danish entrepreneurs are busy taking over a large number of former Soviet sovkhozes (state-owned farms) converting them into thriving pig farms to increase local meat production. A clear trend in the media sector is that more and more Nordic magazines are being printed in Russia or Ukraine. It works both ways. Despite the international financial crisis, Finnish exports to Russia amounted to EUR 4 billion in 2009. Sweden too has benefited from the transformation. Over the past ten years, Swedish companies have succeeded in quintupling their exports to Russia. Norway increased its Russian exports by almost 13 per cent during 2009. NEFCO continues to play a key role in the region in its capacity as a financier of Nordic projects that benefit the environment in Russia, Ukraine, Belarus and the Baltics.

THIS NEWSLETTER CARRIES a story on a Norwegian-Estonian company that invests in the use of biogas in Estonia with the assistance of funding provided by NEFCO. The company is planning to launch a similar activity in Ukraine. As a shareholder and financier, NEFCO has also contributed to the expansion of wind power which, nationally already totals 142 MW in Estonia in terms of installed capacity.

IN SEPTEMBER THIS autumn, the Ukrainian Parliament ratified a framework agreement with NEFCO. This long-awaited agreement permits the financing of new municipal projects that will increase energy efficiency and reduce emissions harmful to the climate. To find out more about these plans, read the interview with our Vice President Torben Vindeløv on page 12.

BUT IT IS not only Eastern Europe that has changed during the past twenty years. NEFCO has also undergone a transformation since 1990 in terms of an expanded capital base and more staff who are involved in an increasing number of sectors in an increasing number of countries. Come along and follow our steps into the future in this newsletter.



MIKAEL SJÖVALL
Communications
Manager
NEFCO

"A large number of Nordic companies have relocated their production facilities to Eastern Europe."

Russia to clean up polluted Franz Josef Land

■ The Russian government has announced that it will spend 740 million RUB to clean up hazardous wastes from Franz Josef Land, an archipelago of 196 islands northwest of Novaya Zemlya, which covers 16,096 square miles.

In 2007, NEFCO co-financed a Russian expedition that surveyed and assessed the hazardous chemicals and wastes in Franz Josef Land. The work was carried out with the help of helicopters and the polar vessel RV Michail Somov, which served as a base for the research team.

The data collected from the survey was fed into a GIS database, which generated the coordinates for the polluted areas. The database, which was partly financed by NEFCO, will play a crucial role in the planned clean-up operations in the archipelago, which are scheduled to begin in 2012.

The money reserved for the clean-up operation by the Russian government will, among other things, be used to dispose about 250 thousand barrels of oil products, which pose a serious ecological hazard to the Arctic environment.



Examining contaminated oil wastes on Franz Josef Land.



Solvatten is providing innovative household water treatment solutions to Kenyans.

Fourteen agreements signed under the Nordic Climate Facility

■ **THE NORDIC** Climate Facility (NCF) has signed fourteen agreements for climate change mitigation and adaptation projects. The facility, which is funded by the Nordic Development Fund (NDF) and jointly administered with the Nordic Environment Finance Corporation (NEFCO), provides financing for climate related projects in low-income countries.

THE FOURTEEN AGREEMENTS were selected out of 138 proposals that were submitted in the 2009 NCF Call for proposals. The projects are almost equally divided between mitigation and adaptation, representing partnerships between Nordic NGOs, consulting companies and equipment suppliers, and their local partners in 9 eligible countries. The first three projects to be financed will improve energy efficiency, develop water harvesting, provide safe drinking water and also contribute to the reduction of poverty in communities in Uganda and Kenya.

GREEN RESOURCES, a Norwegian company, will implement an efficient and sustainable charcoal project with Busoga Forestry Company in Jinja, Uganda. Solvatten of Sweden and the Institute of Environment and Water, a Kenyan-based charitable trust, are partnering to promote an innovative household water treatment technology in Africa's largest slum of Kibera in Nairobi, Kenya. Ramboll Natura of Sweden and its Kenyan partner, the Appropriate Development Consultants, will provide assistance for design and management of water harvesting technologies in arid regions of Kenya.

THE TOTAL BUDGET for the three financed projects is EUR 1.9 million with a 60 % share of NCF grant financing.

NDF grants additional EUR 6 million for the Nordic Climate Facility

■ The Nordic Development Fund's (NDF) Board of Directors has decided to grant financing of up to EUR 6 million for the second call of proposals for the Nordic Climate Facility. The Nordic Climate Facility is administered jointly by NDF and NEFCO.

The second call for proposals, which is open until 14 January 2011, focuses on renewable energy and urban adaptation to climate change.

Agreement on upgrading small wastewater plants in St. Petersburg

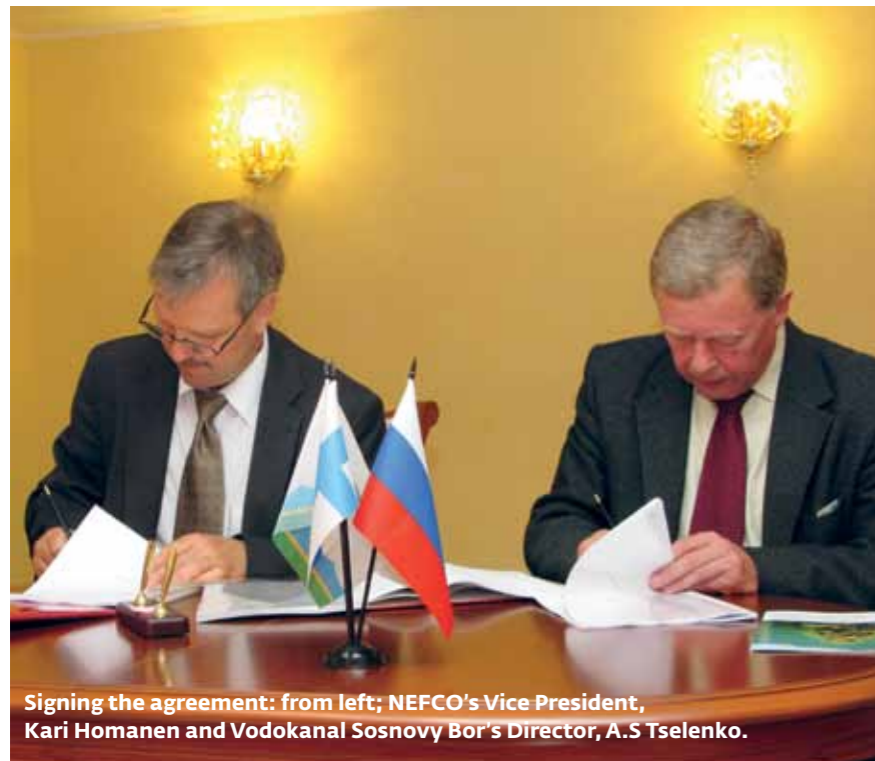
■ NEFCO and the Finnish Ministry of the Environment are financing the modernization of ten small wastewater treatment plants in St. Petersburg. NEFCO has approved a loan of EUR 5 million and the Finnish Ministry of the Environment has committed EUR 1 million for the project. The agreement was signed in August 2010.

The other financiers of the scheme are the local waterworks company Vodokanal, which is also responsible for implementing the project, and the Northern Dimension Environmental Programme (NDEP).

According to the Finnish Environment Institute, improved wastewater treatment in St. Petersburg will drastically improve water quality, promote biodiversity and reduce the spread and proliferation of toxic algae (cyanobacteria) in the Gulf of Finland.



Investment in St. Petersburg's wastewater treatment facilities will benefit 410,000 people.



Signing the agreement: from left; NEFCO's Vice President, Kari Homanen and Vodokanal Sosnovy Bor's Director, A.S Tselenko.

NEFCO signs agreement on wastewater treatment in Sosnovy Bor

■ **NEFCO AND** the waterworks in Sosnovy Bor, Northwestern Russia, have signed an agreement on upgrading the local wastewater treatment. NEFCO will grant a loan of 750,000 EUR in a project, which is expected to reduce the discharges of eutrophying phosphorus by some 22 tonnes per year. This corresponds to the annual untreated discharges of wastewater from approximately 30,000 people.

THE OTHER CO-FINANCERS of the project are the Municipal Unitary Water Enterprise Vodokanal, the Russian government, the Finnish Ministry of Environment and the Northern Dimension Environmental Partnership (NDEP). The total cost of the project is 3.3 million EUR.

"**THIS IS A** very cost efficient project. A similar investment project in the Nordic region would have cost ten times more to reduce a similar amount of phosphorus", says Kari Homanen, Vice President at NEFCO.

HOMANEN ALSO POINTS out that the other beneficial environmental effects of the project are lower energy consumption costs deriving from the



The project in Sosnovy Bor will reduce the discharges of phosphorus by some 22 tonnes per year.

installation of new air compressors, and modern technology for drying the sludge enables environmentally safe final disposal of the sludge.

EPV Energy invests a further EUR 8 million in the NEFCO Carbon Fund

■ The Finnish utility company EPV Energy, based in Western Finland has invested a further EUR 8 million into the second "Kyoto Plus" Tranche of the NEFCO Carbon Fund (NeCF) in order to acquire emission reduction units for its shareholders.

EPV has already placed EUR 21 million in the NeCF. EPV's investment is earmarked to acquire carbon credits after the Kyoto Protocol's first commitment period, which runs out at the end of 2012 in order to meet compliance needs in Phase III of the EU Emission Trading Scheme.

Ash Sharma, Vice President of NEFCO and Head of the Carbon Finance Unit stated: "We welcome EPV's additional contribution to the NeCF. We believe this Facility offers an opportunity for such compliance buyers to hedge post 2012 EU ETS liabilities."

NEFCO is in discussions with a number of other potential investors, principally existing participants in NEFCO's carbon procurement vehicles.

NEFCO finances energy efficiency project in Ivano-Frankivsk

■ NEFCO has agreed to co-finance an energy efficiency project in Ivano-Frankivsk, a municipality situated in Western Ukraine. The energy efficiency project will refurbish four pre- and five general schools identified by the municipality. The planned measures include replacement of thermal insulation of pipes, installation of new heating units, and replacement of existing windows with double-glazed, energy efficient ones.

The total investment cost for the project is EUR 344,000 (UAH 3.6 million) and the estimated payback period is 3.5 years and it is estimated that the municipality will save EUR 98,000 per year in heating costs as a result of these energy efficiency installations.

The Ivano-Frankivsk project is the first one of its kind in Ukraine to be financed by NEFCO and where the borrower is a local authority.

Finnish politicians visit NEFCO-financed projects in Russia

■ **REPRESENTATIVES** OF the Swedish People's Party in Finland visited NEFCO-financed projects in Russia 21-23 October. The delegation was led by the Chair of the party's environmental committee, MP Ms Christina Gestrin. The committee visited Vodokanal St. Petersburg, Teploseti Peterburga and a pig farm run by the Danish company JSC Rurik Agro in Nurma.

MOREOVER, THE COMMITTEE had meetings with local environmental journalists and representatives from the Nordic Council of Ministers. The Swedish People's Party currently holds 2 ministerial positions in the Finnish government and 10 seats out of 200 in the Finnish parliament.



MP Christina Gestrin (left) from the Swedish People's Party in Finland met with Director Anatoly Kinebas from Vodokanal St. Petersburg.

German KfW and NEFCO purchase 4.6 million carbon credits from Mexican wind farms

■ **KfW BANKENGRUPPE**, the German promotional bank, the Spanish Banco Santander, NEFCO, and the Spanish private equity fund, Eolia Renovables have made a landmark deal whereby KfW and NEFCO will buy up to 4.6 million tonnes of Certified Emissions Reductions (CERs) from two wind farms in Mexico.

The projects are developed by Eolia Renovables and Banco Santander will monetize the future income derived from the sale of those CERs.

THE CERs WILL be generated from two wind farms sites in Oaxaca State, Mexico, with a combined capacity of 324 MW. Both projects are being developed by Eolia Renovables under the Self-Consumption scheme included in the Mexican Public Electric Service Act. The first windmills are expected to be in operation by August 2011



and the full operation of both Wind Farms is expected by August 2012.

THE WIND FARM projects will increase the percentage of renewable sourced power in Mexico, promoting the growth of renewable capacity, diversifying the power mix of the Mexican grid and reducing Mexico's dependence on hydrocarbons. Therefore, they will contribute significantly to the sustainable development of the region.

New framework agreement with Ukraine

■ The Ukrainian parliament has ratified NEFCO's framework agreement. The agreement acknowledges NEFCO's status as an international financial institution in Ukraine. This will pave the way for new energy efficiency projects in the country.

NEFCO has financed environmental projects in Ukraine since 2003. "We currently have 85 projects in the pipeline in Ukraine, and many of them can now be implemented thanks to the new framework agreement", says NEFCO's Managing Director, Magnus Rystedt.

NEFCO has so far approved EUR 52.7 million EUR finance for environmental projects in Ukraine. Read more about this subject on page 12.



Lviv city centre, Western Ukraine.



Pakri Wind Farm, Paldiski, Estonia.

Serpentine roads, breathtaking views and Mother Earth's most beautiful features greet us on the way from the airport to Kvalheim in South-western Norway. We accompany a group of investors, journalists, energy experts and municipal decision makers on the way to witness the inauguration of the Mehuken wind farm.

From wind power to biogas

RAIN POURS DOWN AS the wind turbine blades start revolving and one speech after another is delivered in the biting wind. For a short while, we are at the mercy of the elements but soon find ourselves in Kvalheim's warm and cosy club house being served sour cream porridge, cured meat, juice and coffee.

THE NEW WIND farm in Kvalheim boasts eight 2.3 MW units fitted with Enercon E70 turbines. Five Vestas windmills, each with an output of 859 kW, had been erected on the site earlier. The wind farm is located in the outermost archipelago of the Vågsøy municipality where excellent wind conditions

ensure that the revolving rotors provide 3,000 households with electricity. Not bad for a locality with 5,996 inhabitants. One of the chief investors in the wind farm is the utility company Vardar.

"OUR INVESTMENT in the Mehuken wind farm here in Kvalheim is a natural extension to our operations. After all, we invest in renewable energy in accordance with the policy outlined by our shareholders, and this wind farm is a natural addition to our project portfolio," says CEO Johannes Rauboti of Vardar.



The cattle farm OÜ Estonia in Oisu, has some 1,100 cows.

OTHER INVESTORS INCLUDE Kvalheim Kraft, Østfold Energi and Dong Energy of Denmark. Vardar is a utility company owned by the municipalities in the county of Vardar. Originally called Buskeruds fylkeskraft, the company was renamed Vardar in 2002.

"In 2005, we made a decision to invest in wind power in the Baltics. Through our contacts in Pärnu – which is incidentally Buskerud's twin town in Estonia – we got in touch with the key personnel at Eesti Energia, a company that was keen to invest in wind farms in Estonia," explains Rauboti.

VARDAR SEIZED THE opportunity by setting up a subsidiary by the name of Vardar Eurus. NEFCO currently holds a ten percent interest in the company that owns wind farms in Estonia and Lithuania. Rauboti confirms that the investments in the Baltics represent an increasing chunk of Vardar's balance sheet.

CONSTRUCTION OF WIND power has been favoured by a guaranteed price

"My hope is that the project will serve as an example that can be applied in other parts of Eastern Europe," says Nordström.

subsidised by the Estonian State. However, as the subsidy, currently EUR 54 per produced MWh, which is paid on top of the market price, only applies to a limited percentage of wind-generated electricity, it is unclear whether the Estonian Parliament will raise the production ceiling. To date, Estonia has built 142 MW of wind power, only five megawatts less than Finland.

VARDAR EURUS HOLDS a 25 per cent stake in Nelja Energia, an Estonian project management company that has



"The Baltic investments represent a large chunk of Vardar's balance sheet", says CEO Johannes Rauboti.

initiated many of the projects financed by Vardar Eurus and other investors. At the time of our visit to Nelja Energia's head office in Pirita, Tallinn, part of the staff were working on new biogas projects for the municipalities of Oisu and Vinni in Estonia.

"There's a great deal of unharnessed potential in this sector. By producing biogas from cow or pig dung close to large agricultural establishments, we can promote the use of local energy sources that are unaffected by world market prices as well as offer additional revenues for farmers," says Chairman of Board Martin Kruus of Nelja Energia.

THE PROJECT IS to be financed by the newly established Biofond OÜ owned

"WE'VE ESTABLISHED THAT these biogas projects will reduce phosphorus emissions by close to 57 tonnes per year. And as an additional bonus in this connection, we'll also be able to address methane emissions which will yield an annual decrease of almost 53,000 tonnes in carbon dioxide emissions," says Karl-Johan Lehtinen, Senior Manager responsible for environmental affairs at NEFCO.

AT PRESENT, THERE is only one operational biogas facility in Estonia: a NEFCO-funded biogas reactor in the village of Valjala in Saaremaa. Fervent efforts are currently being made to launch a similar project in Oisu where the local farmers have committed to supply cow dung for a jointly-owned



Current manure treatment at the cattle farm in Oisu.

by Vardar Eurus, the Estonian investment company Freenergy and Nelja Energia. NEFCO has recently decided to buy 30 per cent of the shares of Biofond and thereby contribute to the financing of the projects. However, there is a time limit for these types of investments in the Baltics as far as NEFCO is concerned. Under NEFCO's new Baltic policy, the corporation can only finance projects that benefit the Baltic Sea and these investments will only be extended up to the end of 2011. After that, NEFCO will focus on Russia, Ukraine and Belarus.

biogas facility capable of generating heat and electricity for local needs.

"All in all, there are around 3,000 cows in Oisu and the neighbouring villages. Most of the milk is delivered to Tartu where it's processed into cheese and other products. As every cow produces about 6 tonnes of manure per year, it should be more than enough for the foreseen biogas production," says Farm Manager Aive Hommik of OÜ Estonia.

AT THE NEGOTIATIONS with project owners and the other investors in the biogas projects, NEFCO has been represented by Vice President Solveig Nord-



OÜ's Estonia's Farm Manager, Aive Hommik.

ström who has worked with the financing of environmental projects in the Baltic region for over 20 years. Nordström has also worked as a Board Member in Vardar Eurus. She will retire in December 2010.

"IT FEELS GREAT to have been involved in the efforts to build sustainable energy production in the region. Now it's time to hand this, just like other projects, over to my younger colleagues at NEFCO. My hope is that the project will serve as an example that can be applied in other parts of Eastern Europe," says Nordström.



There's a great deal of unharnessed potential in the biogas sector, says Chairman Martin Kruus of Nelja Energia.

"In fact, we are exploring possibilities to invest in biogas facilities or other renewable energy in the Baltic countries or for example in Ukraine," says Martin Kruus of Nelja Energia. **N**

The traffic inches forward from Moscow towards Mytischi some 20 kilometres away. The metropolis extends its tentacles deep into the scattered neighbouring municipalities encircling the Russian capital. Mytischi, a prosperous city home to some 190,000 inhabitants, is the fifth largest population centre in the Moscow region.

Mytischi invests in renewable energy and district heating

AS A RESULT OF DETERMINED efforts, Mytischi has succeeded in expanding and upgrading its district heating network to cover most of the city. Upgrading was carried out partly with funding provided by the Swedish International Development Cooperation Agency Sida. In 1997, JSC Mytischi Teploset Ltd, a local company, received financing from the World Bank to modernize the district heating network following careful screening of the numerous applicants eager to participate in the project within the framework of the Bank's 'Municipal Heating Program'. The World Bank's project included installation of close to 200 sub-stations to substantially reduce maintenance costs on part of the network and to cut down on energy consumption by around a quarter. At

the same time, the district heating piping, which was at the end of its service life, was replaced by new pre-insulated pipes with a combined length of 54 kilometres.

THANKS TO THESE new investments, Mytischi Teploset is today one of Russia's most progressive utility companies with a district heating system comprising 54 boiler plants, new sub-stations, an automated and centralized leakage detection system, and a thermally insulated pipework with low heat loss.

NOW MYTISCHI TEPLOSET intends to increase the share of renewable energy in its operations. To this end, the company has decided to invest in a 2.5 MW boiler plant that can be fuelled by woodchips, pellets and other biomass.



Boiler plant KTS-44 in Mytischi.



Chief Engineer Alexander Birukov of Mytischi Teploset.

Mytischi Teploset runs 54 boiler plants.

NEFCO is planning to co-finance the project by extending a EUR 2.2 million loan to it. The remainder of project financing is to be provided by Mytischi Teploset, Sida and the International Finance Corporation (IFC), a World Bank's sister organisation.

"The project is expected to reduce carbon dioxide emissions by around 9,300 tonnes per year and make it possible to cut down on the consumption of natural gas and heavy fuel oil," says Chief Engineer Alexander Birukov of Mytischi Teploset.

NEFCO'S PROJECT IS part of a bigger IFC-initiated pilot project which is expected to gain 'joint implementation' status within the framework of the flexible mechanisms provided for in the Kyoto Protocol. Such a status would allow the project owners to receive additional revenues from the sale of Emission Reduction Units to foreign buyers. Among the potential candidates for such purchases is NEFCO's own carbon credit fund Baltic Sea Region Testing Ground Facility (TGF).

"PRELIMINARY CALCULATIONS SUGGEST that on the whole, the project would yield an annual reduction in carbon dioxide emissions of up to 25,500 tonnes," says Senior Investment Manager Ulf Bojö who represents NEFCO in the talks with Mytischi Teploset.

OF THE EXISTING 54 boilers operated by the company, only one can be fired by biomass. As a result of the NEFCO-funded project, one more boiler will now be able to supply heat by using renewable energy.

"We've signed contracts with a range of companies that will supply biomass and woodchips to us. Sometimes we also receive timber from building sites. The market for biomass in Russia does not really work as it should because of low demand and market prices. It tends to complicate our work from time to time," says Project Engineer Alexander Saigakov of Mytischi Teploset.

BUT THE PRICE of natural gas has been steadily rising over the past few years, a development that has compelled Mytischi Teploset to look around for optional fuels. Consequently, increased focus on biofuels offers savings potential for the company.



Project Engineer Alexander Saigakov of Mytischi Teploset.

"The price of natural gas has been steadily rising. Consequently, increased focus on biofuels offers savings potential for the company."

ANOTHER STRAIN IN the company's strategic policy is the continued efforts to upgrade the existing district heating network. According to Chief Engineer Alexander Birukov, the company saves RUB 1 - 1.2 million per year for every kilometre of new piping laid. When we leave the company site, we are greeted by stacks of locally produced insulated polyurethane pipes piled up outside Mytischi Teploset's head office. And judging from the snow blizzard quickly covering Mytischi's streets and squares, heat will soon be a much sought-after commodity. Then it is good to have a friend in need. **N**

The framework agreement between NEFCO and Ukraine was ratified in autumn 2010 and approved by President Yanukovich. The agreement paves the way for new investment opportunities. NEFCO's Vice President, Torben Vindeløv, is responsible for the corporation's operations in Ukraine.



Vice President Torben Vindeløv is NEFCO's Country Manager for Ukraine.

Framework agreement opens up new business opportunities

WHAT DOES A FRAMEWORK AGREEMENT WITH UKRAINE MEAN FOR NEFCO?

It means that NEFCO now has the status of an International Finance Institution (IFI) in Ukraine and this gives the corporation several advantages. For example, NEFCO is now able to lend money to municipalities and regions. NEFCO has several projects in the pipeline in Ukraine and these can be implemented within the framework of the agreement.

IT TOOK QUITE A LONG TIME TO RATIFY THE AGREEMENT. WHY?

The political turbulence in Ukraine – a change of government, new politicians and officials, together with the fact that NEFCO is not the biggest actor within IFIs, have probably been the main reasons for the delay.

AT THE MOMENT NEFCO HAS APPROXIMATELY 85 ON-GOING PROJECTS IN UKRAINE. IS THAT A LOT OR TOO LITTLE?

It's too little. There should have been more. When Poland joined the EU and we were not able to finance new projects there, we hoped that Ukraine would take over Poland's role as one of the leading markets for NEFCO finance. However, our projects are dependent on an attractive investment environment for Nordic companies, and it seems Ukraine has not been as attractive as Poland. Another reason for the low level of investment is the international financial crisis which has hit Ukraine particularly hard. This has led to several investment opportunities, both local and foreign being cancelled.

WITHIN WHICH SECTORS DO YOU BELIEVE THAT THE AMOUNT OF PROJECTS WILL INCREASE MOST? WILL MOST OF THE NEFCO-FINANCED PROJECTS CONTINUE TO BE LOANS FOR CLEANER PRODUCTION?

NEFCO will mostly finance projects within the energy saving and energy efficiency sectors. One of our goals is to increase the use of local energy in order to decrease the importation of gas.

Ukraine's economy has been subjected to a long period of stagnation, which has seen many commercial banks cutting their lending to domestic customers.

"We can show that environmental investments are no more difficult to finance than any other projects."

WHY HAS NEFCO CHOSEN TO FINANCE ENVIRONMENTAL PROJECTS IN UKRAINE?

This is precisely NEFCO's philosophical mission and what we have been doing for the last 20 years - investing in environmental projects that have business potential in countries where commercial loans are difficult to obtain.

DOES NEFCO HAVE ANY POSSIBILITY TO INFLUENCE ENVIRONMENTAL POLICIES IN UKRAINE?

I believe that NEFCO has a good chance of influencing Ukraine's en-

vironmental policies by setting good examples. Within the public sector, we can show that environmental investments are no more difficult to finance than any other projects. By investing in successful commercial ventures in energy savings, heating and wastewater, we can demonstrate that environmental investments make good business sense and are essential for changing the Ukrainian people's way of life for the better.

WHAT CAN NORDIC COMPANIES OFFER UKRAINE?

Nordic companies tend to be quite effective in the area of industrial environment. They are innovative and invest in development, and there is a tradition for balancing production and the natural environment. In general, Nordic companies have a very holistic approach to business, and are not afraid to invest in long-term ventures.

WHAT CAN NEFCO OFFER THESE NORDIC COMPANIES?

Besides financing and environmental knowledge, NEFCO has a very good business network in Ukraine and can offer valuable experience accumulated from financing environmental projects in Eastern Europe for the past 20 years.^N

Most of the business concepts of today's large corporations are based on a completely misguided idea: to have a maximum number of people buy a maximum number of things at as low a price as possible in order to get rid of them quickly to buy new ones.

Social entrepreneurship - next generation CSR?

NO MATTER HOW MUCH corporate social responsibility (CSR) we try to inject into this scheme of things, the actual business concept is somehow outdated. After all, it is based on the notion that the resources of society and nature are endless.

IN RECENT YEARS, the public debate on climate change, loss of biodiversity and sustainable development has brought this fact home.

MORE OFTEN THAN not, CSR means doing good alongside regular business (selling cars, computers, screws and nuts) by donating funds to non-profit organisations or planting trees to make up for carbon dioxide emissions. Instead of being a core activity, it is just something to compensate for the lack of social or environmental responsibility in what the company normally does.

CSR, HOWEVER, IS a temporary and flawed solution. What we need to do is to completely reverse our thinking in order to create solid businesses and trademarks for the future. Addressing social and ecological issues must be an integral part of the actual business concept - if not the concept itself! If we assume that one of the biggest challenges facing society is how to solve social problems, then, logically, there should be a market for just that.

EVER SINCE MUHAMMAD Yunus received the 2006 Nobel Prize for his efforts with the Grameen Bank declaring that he considered himself more as a social entrepreneur than an economist, there has been a growing interest in social entrepreneurship. It means using business and entrepreneurial methods to deal with some of the great challenges facing society.

SOCIAL ENTREPRENEURS CREATE the business out of a social or ecological concept. They identify a societal problem they wish to address with many perceiving the corporate form as the best way of driving social change. To put it in other words, the whole business concept is based on the belief that a system or structure can be amended or problems solved. They see an opportunity to make money through their efforts to solve a social problem; however, they use

money only as a means to an end, which is to change society. Profit is not an end in itself.

AS A RESULT, social entrepreneurs are not only making a social contribution by their actions, they are, at the same time, challenging the conventional perception of the economy and earning by suggesting that there is no conflict between business and the benefits to society. On the contrary, it is exactly the area of social benefit where future business will be found.

"Addressing social and ecological issues must be an integral part of the actual business concept."

THE SOCIAL ENTREPRENEURS challenge our way of thinking as to who is to assume responsibility for what in society; if we are to achieve sustainable development, we can no longer leave problem solving to politics. It also means that running a business is another, perhaps more effective form of political activism in an age when the traditional political channels are felt to be serving little purpose.

WHAT IS MORE, social entrepreneurs show how to run a business in a global context where environmental and social issues are the first priority. They are the next generation of companies like Body Shop, IKEA, Ben&Jerry's and Patagonia. Among other things, this is evident in the competition for new talent and attractive labour as companies that focus on social benefits are drawing gifted young people in ever increasing numbers.

TODAY'S LARGE CORPORATIONS can learn a lot of how social entrepreneurs think and act. While it may not show in the first quarterly reports, these enterprises point the way for creating sustainable trademarks of the future in the long run.^N



COLUMNIST
ERIKA
AUGUSTINSSON

Lecturer, author
and consultant,
Sweden

The Carbon Finance and Funds (CFF) operations of NEFCO have continued to broaden their scope of activities in the climate financing space during 2010. A number of new climate finance initiatives and strategic programmes have been undertaken, including technical assistance, climate guarantees and market readiness activities. Ash Sharma, Vice President at NEFCO describes some of the challenges and NEFCO's response to these.

NEFCO mobilising innovative climate financing solutions

FOLLOWING THE COPENHAGEN Accords of late 2009, finance has become increasingly important to international negotiations on climate change. It is now widely accepted that developed countries must mobilise large scale finance flows, in the order of USD 100 billion per annum by 2020, for mitigation and adaptation activities in the developing world.

THE HIGH LEVEL UN Advisory Group on Finance argues that a judicious use of public funds in combination with private resources is required to achieve these levels of investment. The key issue is leveraging private finance using public financing mechanisms and risk sharing.

HENCE, NEFCO IS working with innovative pilot mechanisms and programmes in the climate finance space. 2010 saw several initiatives in this respect, including the launch of a new climate guarantee facility, Pro-Climate. In another example of mobilising private finance, NEFCO in cooperation with other financial institutions also concluded a landmark transaction

in Mexico, which allowed the collateralisation of carbon financing to mobilise upfront resources for a large scale wind project, with capital invested at over USD 660 million.

PILOTING SCALED UP APPROACHES

Mr. Sharma believes that the need for upscaled approaches for more advanced developing countries is critical. So called sectoral approaches involve country specific sector based actions based around technology choices or policy instruments, for example, implementation of fuel efficiency standards. These Nationally Appropriate Mitigation Actions (NAMAs) can also involve sectoral crediting approaches, which have the possibility to mobilise significant private sector capital flows. However, given that progress in international negotiations for these concepts had been slow, NEFCO undertook a study on innovative climate finance facilities for testing scaled up mitigation approaches. This work has evolved into a NOAK1-NEFCO Partnership Initiative, which over the period 2010-11 will start a pilot initiative to test up-

scaled support for NAMAs in a developing country.

The Initiative was announced at a Ministerial meeting in Reykjavik in November 2010, and presented at an official side event in Cancún, Mexico. NEFCO is a member of the steering

"NEFCO continues to engage a wider range of climate stakeholders beyond its traditional networks in Eastern Europe and the Nordic countries, reflecting the global reach of its funds and the nature of the problem."



Cutting emissions. NEFCO's Carbon Finance and Funds Unit has assets under management exceeding EUR 160 million.

committee and is administering the Trust Fund for the Initiative.

PROCLIMATE FACILITY

In August 2010, a EUR 10 million climate guarantee vehicle was established jointly with Nordic Development Fund (NDF). The ProClimate Facility (ProCF) was set up to pilot a partial climate guarantee and technical assistance facility to support small and medium-sized investments in climate change mitigation and adaptation projects, including those eligible for CDM. ProCF can extend partial loan guarantees as well as technical assistance to selected projects. As an innovative element the facility can enable different kinds of advance payments on deliveries and supplies, such as energy and Certified Emission Reductions (CERs) under the Clean Development Mechanism (CDM). Attaching technical assistance to the selected projects is expected to further enhance the efficiency of the facility.

JOINT NORDIC PROJECT ON CARBON MARKET MECHANISMS

During 2010, NEFCO has been participating in a climate project under the so called Globalization Initiative of the Nordic Council of Ministers. A decision was made by the Nordic finance ministers in autumn 2009 to launch a joint project on the Nordic countries' experiences from the global Joint Implementation / CDM markets and to assess prospects for possible future Nordic cooperation. The project, titled Nordic Perspectives on Carbon Market Mechanisms was prepared by a steering committee with representatives from NEFCO, the Nordic JI / CDM authorities, from the Nordic ministries of finance and the Nordic Council of Ministers (including the Climate Group).

The project was organized around three workshops hosted by NEFCO in Helsinki (March and May 2010, Helsinki) and the Ministry of Finance in Oslo (September 2010). The workshops were held with themes (1) of lessons learned, (2) financing of JI / CDM projects and (3) post-2012 Nordic cooperation. Mr. Sharma states that "the activity contributed to a very useful exchange

of experiences, and there are good perspectives for a strengthened future Nordic cooperation on JI / CDM, focusing on post 2012 period and new mechanisms."

INTERNATIONAL NETWORKS FOR CLIMATE FINANCE

NEFCO continues to engage a wider range of climate stakeholders beyond its traditional networks in Eastern Europe and the Nordic countries, reflecting the global reach of its funds and the nature of the problem. Stakeholders have included multilateral banks, bilateral development financial institutions and UN organs, in areas of project development and technical cooperation. One example of such cooperation has been the UNEP Bilateral Finance Institutions Partnership, where NEFCO joins AFD (France), KfW (Germany), JICA (Japan) and the European Investment Bank to report on climate financing issues. This year the Partnership has updated its 2009 climate finance mapping exercise and presented this at an official side event at the COP 16 conference in Mexico. **N**

Iceland has been hit hard by the current economic downturn, and policy making in the aftermath of this financial storm is a tricky issue.

Iceland: A business in liquidation or a source of knowhow?

SHOULD WE STICK TO SUSTAINABLE use of our resources, or should we harness those resources as quickly as possible to speed up the recovery, hoping that the future will bring us new opportunities to compensate for the lost resources? In other words: Can we afford sustainability at the time being, or are we forced to treat our nature "as if it were a business in liquidation", as the green economist Herman Daly put it several years ago?

ICELAND IS RICH in terms of renewable energy sources, i.e. hydro and geothermal. A couple of years ago we started up the 700 MW Karahnjúkar hydropower plant to produce electricity for the new Alcoa aluminium smelter in Reydarfjörður. The largest investment in the history of Iceland, the Karahnjúkar plant increased domestic electricity production by some 50%. And Alcoa became the largest buyer of electricity, purchasing approximately one third of the total production.

AFTER KARAHNJUKAR THERE were not many opportunities left for big investments in hydropower, partly because most of the low hanging fruits had already been picked and partly because of growing opposition to the negative environmental and aesthetic effects caused by big reservoirs. Geothermal energy then emerged as the source of electricity for the future - a hot, bubbling hole in the ground lighting up the streets!

ICELAND HAS A long history of harnessing geothermal energy. Way back in the 13th century Snorri Sturluson is said to have used geothermal water in his house for cleaning and bathing. However, 1908 is widely regarded as the year in which geothermal power began to be commercially exploited for domestic energy purposes, and by the 1950's many households in Reykjavik were being heated by geothermal water. At present some 90% of all households in Iceland are heated by geothermal water, while the remaining 10% are heated with renewable electricity.



COLUMNIST
STEFÁN GÍSLASON
Senior Consultant
Environice,
Iceland

BUT SHOULD WE keep on developing the use of geothermal energy gradually as we did during the last decades, or should we speed it up to add another 50% to the national grid in order to provide more aluminum smelters with energy? Well, there is a problem: The heat beneath our feet will not be turned off, but if we overuse it there will not be sufficient water to bring that heat to the surface in a harnessable form. Furthermore, many of the most active geothermal areas are unique from a nature conservation point of view and provide a home for thermophilic microorganisms, which we still don't know much about, but could provide a vital clue to understanding our universal ecosystem.

"At present some 90% of all households in Iceland are heated by geothermal water, while the remaining 10% are heated with renewable electricity."

THIS IS WHERE policy making comes into the picture. The opportunities do not only lie in harvesting geothermal energy in Iceland, but also in exporting the knowledge we have accumulated over the the last 100 years. This is how we can cooperate with NEFCO and help other countries in managing their environmental resources. This is a win-win situation as we would sustain rather than plunder our geothermal resources and contribute to the development of renewable energy resources in Eastern Europe.

SO, LET'S NOT panic. Rather, let's manage our resources efficiently and help our neighbours to do the same. We can afford sustainability. It's, by the way, the only affordable option! **N**



NEFCO IS CELEBRATING its 20th anniversary this year. To commemorate this event, a climate investments seminar was arranged on Thursday 11th November 2010 in Helsinki.

The anniversary seminar, which attracted over 200 participants from ten different countries, focused on business operations, which reduce emissions of greenhouse gases and mitigate climate change. Special attention was given to cost efficient investment schemes, which promote low carbon technologies.

The presentations from the seminar can be downloaded from NEFCO's website at http://www.nefco.org/newsroom/20th_anniversary.



Currently Russia uses twice as much energy in one administrative district as all of the Nordic countries do. High energy consumption levels are particularly common in the industrial sector where equipment is often at least 25 years old.

NEFCO teams up with Russia's Prime Finance Bank

TO COMBAT THIS PROBLEM, NEFCO has established an environmental fund, which is to be managed by Prime Finance Bank, operating in St. Petersburg and the Leningrad region. This is not the first time that NEFCO has embarked on financing environmental banking. The corporation has, for example, worked with Bank Lviv in Ukraine, and gained valuable experience in the process.

ALTHOUGH THE TUMULTUOUS 90's and the recent financial crisis have rattled the financial credibility of many Russian banks, the small, conservative and cautious Prime Finance Bank has managed to maintain a solid financial reputation. According to Ulf Bojö, Senior Investment Manager at NEFCO, Prime Finance Bank is the epitome of responsible risk taking.

FOR NEFCO, THE aim of establishing an environmental fund with a Russian bank is to promote energy efficiency within the Russian industrial sector. Mr. Bojö points out that there are two main concerns about energy efficiency in Russia today. First, the Russian banking system is still not well developed to finance energy efficiency projects, and there are several structural problems as well as a dearth of knowledge on executing energy efficiency projects. The cooperation between NEFCO and Prime Finance Bank is intended to demonstrate that environmental banking is not only energy efficient but cost-efficient as well.

THE PRIME FINANCE Bank has already taken the first crucial steps to acquaint itself with the philosophy and practi-

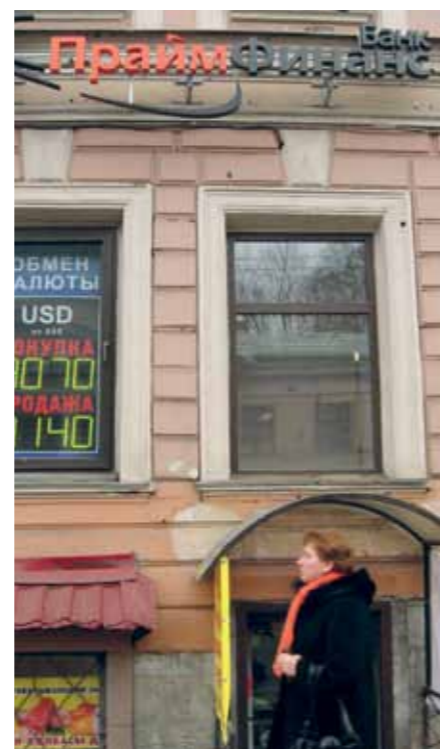
calities of environmental banking by participating in an educational programme arranged by the International Finance Corporation. The programme is specially designed for Russian banks that want to finance energy related investments within the Russian industry.

ACCORDING TO MR. Bojö, there are several advantages in working directly with the Prime Finance Bank. First, NEFCO will benefit from the bank's existing, extensive network of clients and partners. For its part, Prime Finance Bank will gain valuable experience on environmental banking. Together the two financial organizations will create synergies which will result in efficient labour and costs inputs.

DURING THE COURSE of the project, Prime Finance Bank will regularly report back to NEFCO about the progress of each business operation.



Entrance to Prime Finance Bank near the Finland station in St. Petersburg.



Prime Finance Bank's office on Ulitsa Akademika Lebedeva in St. Petersburg.

THE TOTAL COST of the project is EUR 2.2 million and NEFCO will contribute EUR 1 million. Other partners involved in the project are the Danish and Finnish governments and the Global Environment Facility, which is administered by the World Bank.

"The programme is specially designed for Russian banks that want to finance energy related investments within the Russian industry."

THE OVERALL AIM of this project is to promote energy efficiency in St. Petersburg and the Leningrad region, and the environmental fund is therefore open to all Nordic organizations, which currently have a presence in the region. The first projects financed by NEFCO and Prime Finance Bank are expected to be launched during the first half of 2011. **N**

Staff changes at NEFCO



Ms. TUA SKAND, from Finland, has returned from three years of parental leave and has been appointed Loan Administrator. She previously worked as an assistant at NEFCO.



Ms ANJA NYSTÉN, from Finland, has been appointed Senior Advisor at NEFCO with responsibilities for environment, energy and climate issues. Before joining NEFCO she worked as a Senior Consultant for the environmental consultancy firm Ecobio Oy.



Ms HELLE LINDEGAARD, from Denmark, has been appointed Senior Legal Adviser at NEFCO. Before joining NEFCO, she worked as an Attorney at law in Helsinki at the Finnish-Swedish law firm Roschier. Prior to moving to Finland, Ms Lindegaard worked as a judge in Denmark.



VICE PRESIDENT SOLVEIG NORDSTRÖM retired on December 1 and conveys the following regards: "Twenty years in the service of NEFCO have passed and the time has come for me to retire. The success of NEFCO and my rewarding job have been made possible by the positive and pleasant cooperation with all of those with whom I have had the fortune to work with. Let me, therefore, take this opportunity to express my sincere gratitude to all our clients and my colleagues - for the friendly cooperation during all these years. I feel confident that those who take over my duties will enjoy their work as much as I have enjoyed mine."

Book on NEFCO's history out

ENTITLED "20 YEARS OF FINANCING environmentally sustainable solutions" NEFCO's historical account was published in November to coincide with the corporation's 20th anniversary.

THE BILINGUAL BOOK HAS been written by Author Annika Luther and Journalist Bo Ingves and is available in Swedish and English.

"By reading the book, you can easily get an overview of the early days and how NEFCO's business operations have expanded and developed over the last 20 years, says the book's Editor-in-Chief, Mikael Sjövall who is also NEFCO's Communications Manager.

THE NEFCO HISTORICAL account can be ordered by sending a request to this e-mail address: info@nefco.fi



This is NEFCO

The Nordic Environment Finance Corporation, NEFCO, is an international financial institution established in 1990 by the Nordic countries – Denmark, Iceland, Norway, Sweden and Finland. Its primary objective is to finance cost-efficient environmental projects in its neighbouring areas in Eastern Europe. NEFCO provides financing for projects which aim at reducing environmentally hazardous emissions and discharges.

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Svobody Avenue, Lviv, Ukraine. Photo: Patrik Rastenberger.



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