

NEFCO & Energy Efficiency

Crimea

27 October 2008

NEFCO

- Nordic Environment Finance Corporation (NEFCO)
- Specialist Fund Manager with ecological finance motives.
- Not for profit type operation. Our success is measured by our ecological achievements
- Targeting small and medium size projects
- Multilateral status
- Established and funded by Norway, Iceland, Denmark, Sweden and Finland
- Countries of operation: Russia, Ukraine, Belarus, Baltic States

NEFCO

Subsidised Finance for Ukraine

- Cleaner Production Credits
 - Soft finance for investments that make production more efficient and less wasteful - "More for Less"
- Energy Savings Credits - **Not yet introduced in Ukraine**
 - Very soft finance for energy saving investments in social institutions (Schools, Kindergartens, Hospitals, Street Lighting and Public Sports Facilities).

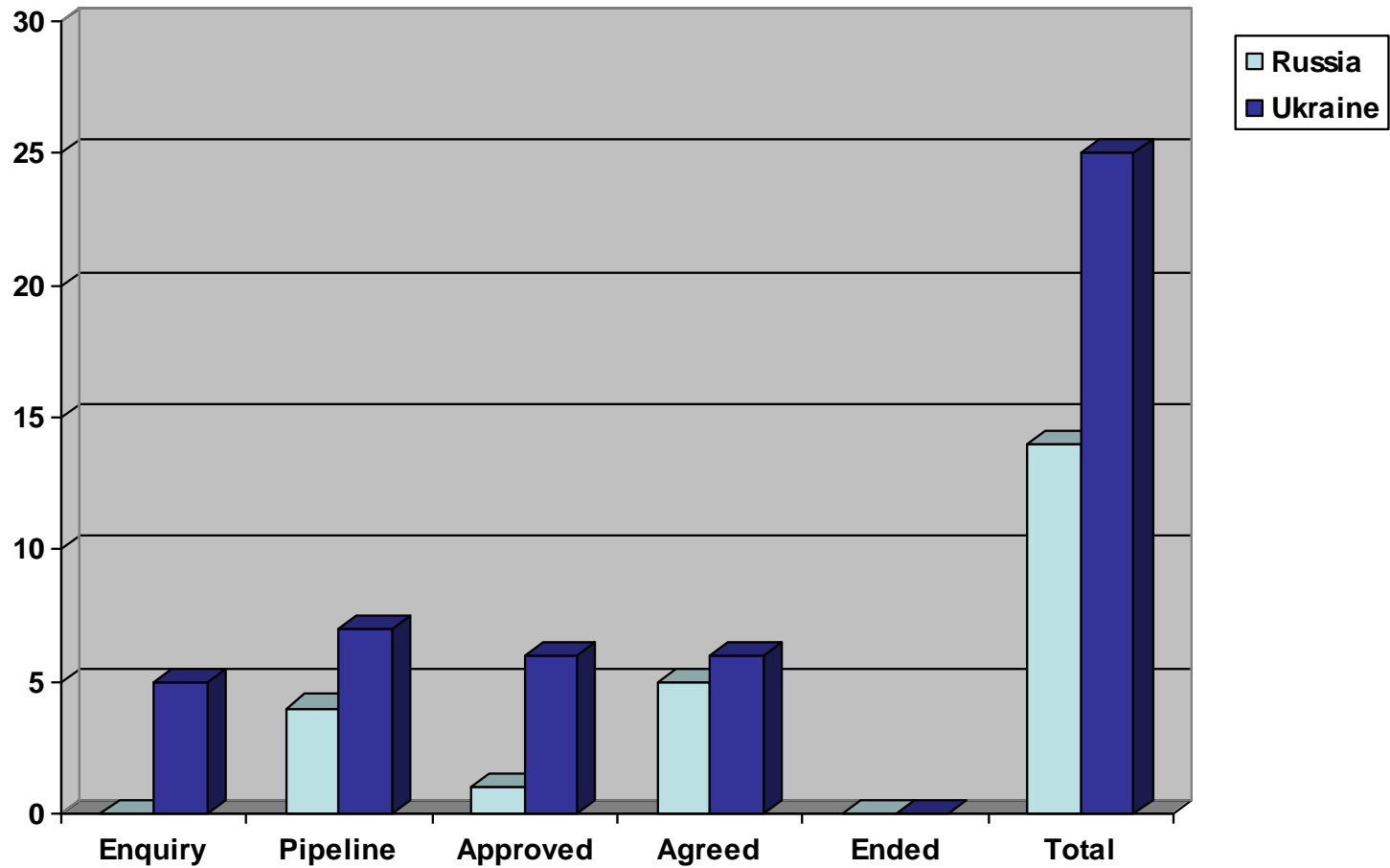
Finance Criteria

- Investment pay-back time less than 4 years
- The ecological benefits must be both significant and cost efficient
- Loans must be fully secured

- *Terms of the CP loan:*
 - Loan amount min EUR 50,000 and max EUR 350,000
 - Client can chose between USD or EUR
 - Loan amount max 90% of the project cost
 - Interest 6% p.a. for EUR and USD
 - Security 125% of the loan amount
 - Repaid in equal quarterly instalments (serial loan)
 - Maturity 4-5 years
 - Possible grace period during construction.
 - Standard Loan Agreement (not negotiable)
 - Competitive procurement – Nordic companies can bid

Number of CP Projects

17.10.2008



Examples of CP projects approved by NEFCO in Ukraine

- New wood waste boiler house and wood drying chambers at wood working industry in Western Ukraine.
 - Investment EUR 349,000
 - NEFCO finance EUR 300,000
 - Annual savings EUR 140,000 PBT = 2.49 years
- Installation of gas driven CHP for the investor's own power requirement and for sale of heat to a public swimming pool in Central Ukraine.
 - Investment EUR 385,000
 - NEFCO finance EUR 350,000
 - Annual savings EUR 109,000 (2007) PBT = 3.53 years

Examples of CP projects approved by NEFCO in Ukraine

- Renovation of 5 boiler houses supplying heat for a hospital, polyclinic, kindergarten and secondary school in Eastern Ukraine through an ESCO arrangement.
 - Investment EUR 558,000
 - NEFCO finance EUR 350,000
 - Annual savings EUR 242,000 PBT = 2.31 years
- Replacement of baking oven in Central Ukraine (third project)
 - Investment EUR 450,000
 - NEFCO finance EUR 350,000
 - Annual savings EUR 112,000 PBT = 4,02 years

Examples of CP projects approved by NEFCO in Ukraine

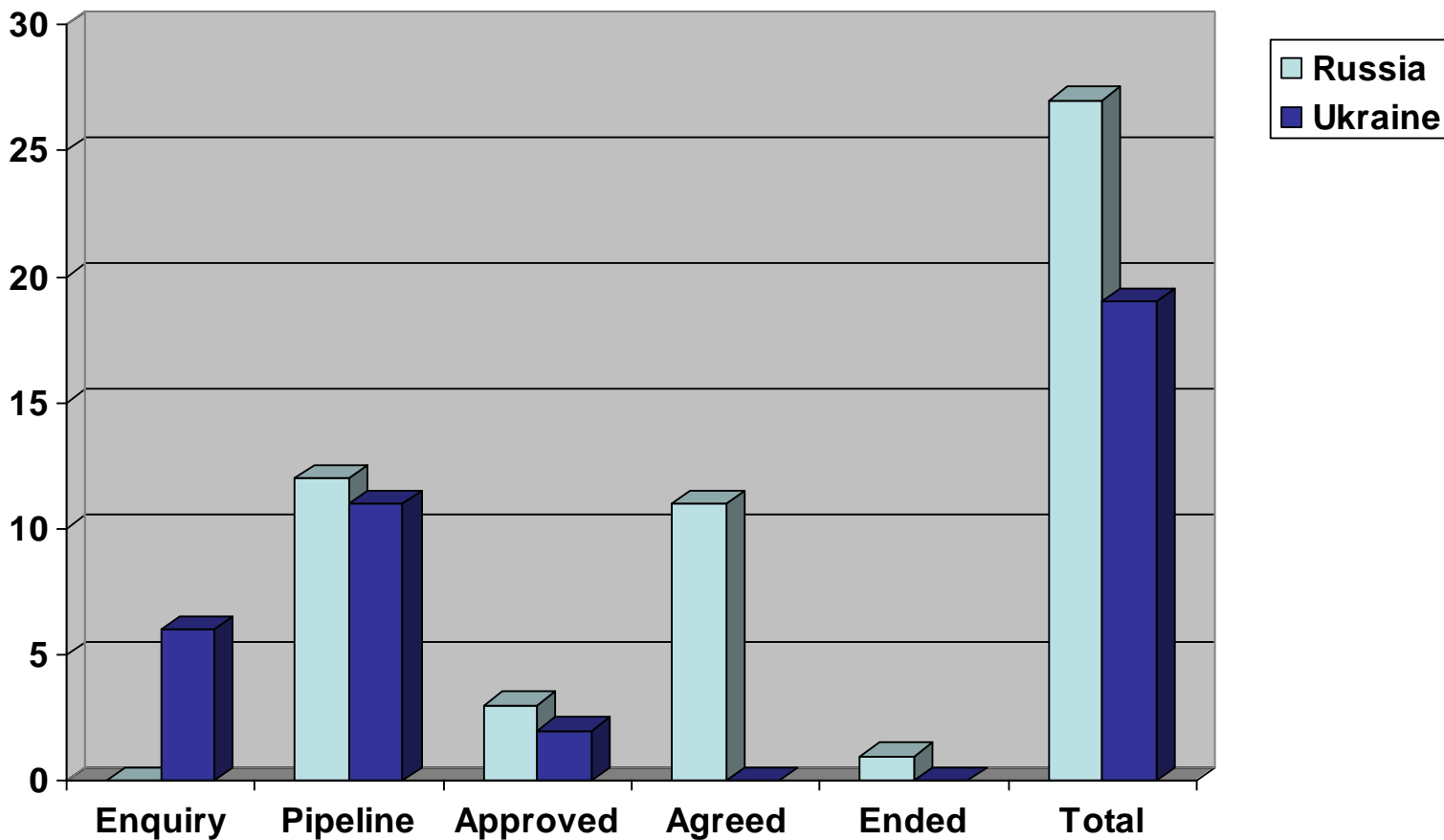
- Installation of and on-farm bio-diesel production plant (rape-seed) in Western Ukraine.
 - Investment EUR 285,000
 - NEFCO finance EUR 175,000
 - Annual savings EUR 73,000 PBT = 3,90 years
- New glass melting oven for electrical bulb production plant in Western Ukraine (second project)
 - Investment EUR 349,000
 - NEFCO finance EUR 315,000
 - Annual savings EUR 100,000 PBT = 3.49 years

- *Terms of the ES loan:*

- Loan amount min UAH 350,000 and max UAH 2,000,000
- **Loan given in local currency and is repaid in local currency**
- Loan amount max 90% of the project cost
- **Interest 3% p.a.**
- Security 125% of the loan amount
- Repaid in equal quarterly instalments (serial loan)
- Maturity 4-5 years
- Possible grace period during construction.
- Standard Loan Agreement (not negotiable)
- Competitive procurement – Nordic companies can bid

Number of ESC Projects

17.10.2008

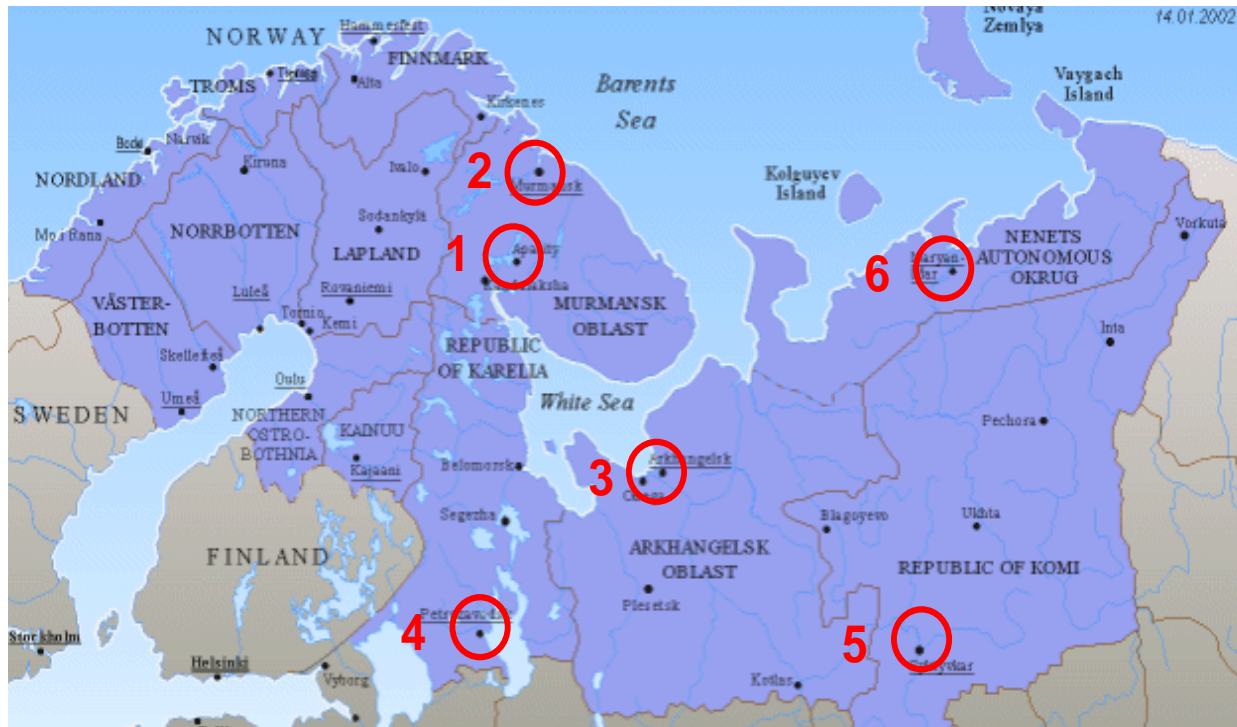


Paradox

- From experience since 2004 we know that utility companies in small and medium cities have difficulty in securing finance for priority energy efficiency and energy savings projects.
- NEFCO would very much like to help these utility companies, but we are barred from doing so as long as Ukraine has not recognised our status as an International Financial Institution.

Examples of NEFCO ESC finance activities in Russia

Cooperation with Russia on the Social Projects financing 1995 – 2006



- More than 250 public buildings covered by the Programme.
- More than 50 projects implemented.
- Energy consumption in buildings reduced in average by 25%, indoor climate improved

School No 4, Novodvinsk



Investments	120 000 Euro
NEFCO conditional grant	60 000 Euro
UNDP/GEF grant	20 000 Euro
Municipality	40 000 Euro

Calculated savings **825 000 kWh/year**

Payback **7,3 years**



School No 4, Novodvinsk

ENCON measures (76 000 Euro, payback 5,5 years):

- replacement of outdoor lamps
- new dish washing machine, replacement of refrigeration chamber with lower capacity
- heat insulation of pipes, new automatic heating substation
- thermostatic valves and radiator screens
- energy Monitoring System
- lowering of ceiling in canteen/smaller windows
- repair of hot water supply system

Reconstruction measures (44 000 Euro):



Before



After

Energy Saving Measures at Social Sphere Objects in Velsk, Archangelsk Region



Project includes ENCON measures in Kindergarten and City Hospital



Net Savings **2 271 500 RUR/**
year
Payback (ENCON) **4,4 years**

Source of financing	Sum (RUR)	Interest Rate	Period
NEFCO ESC Facility	8 830 000	3%	4,4 years
Municipal equity	1 057 000		
Total investments	9 887 000		

www.nefco.org

Please visit our web-site for further
information