

Financing Sustainable Energy in Ukraine: EBRD Experience

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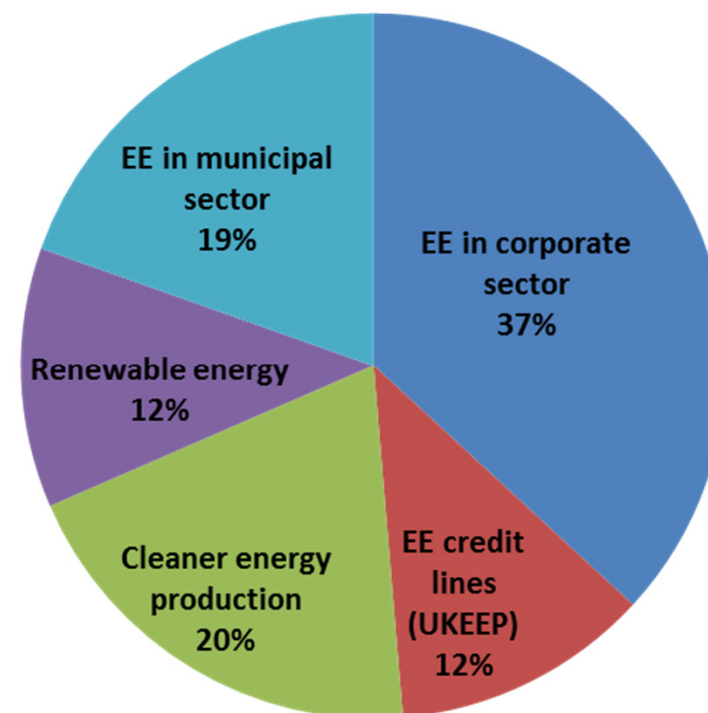


EBRD – a largest financial investor and facilitator of energy efficiency

- Portfolio of over €11 billion in 360 projects (€1 billion annually)
- Sustainable energy - 30% of total financing

Sustainable energy investments in Ukraine, 2006-2015

	Number of projects	Amount (EUR million)
EE in corporate sector	60	844
EE credit lines (UKEEP)	11	232
Cleaner energy production	9	397
Renewable energy	13	285
EE in municipal sector	26	448
TOTAL	119	2,206



Corporate energy efficiency: Value added to our clients – Astarta success story



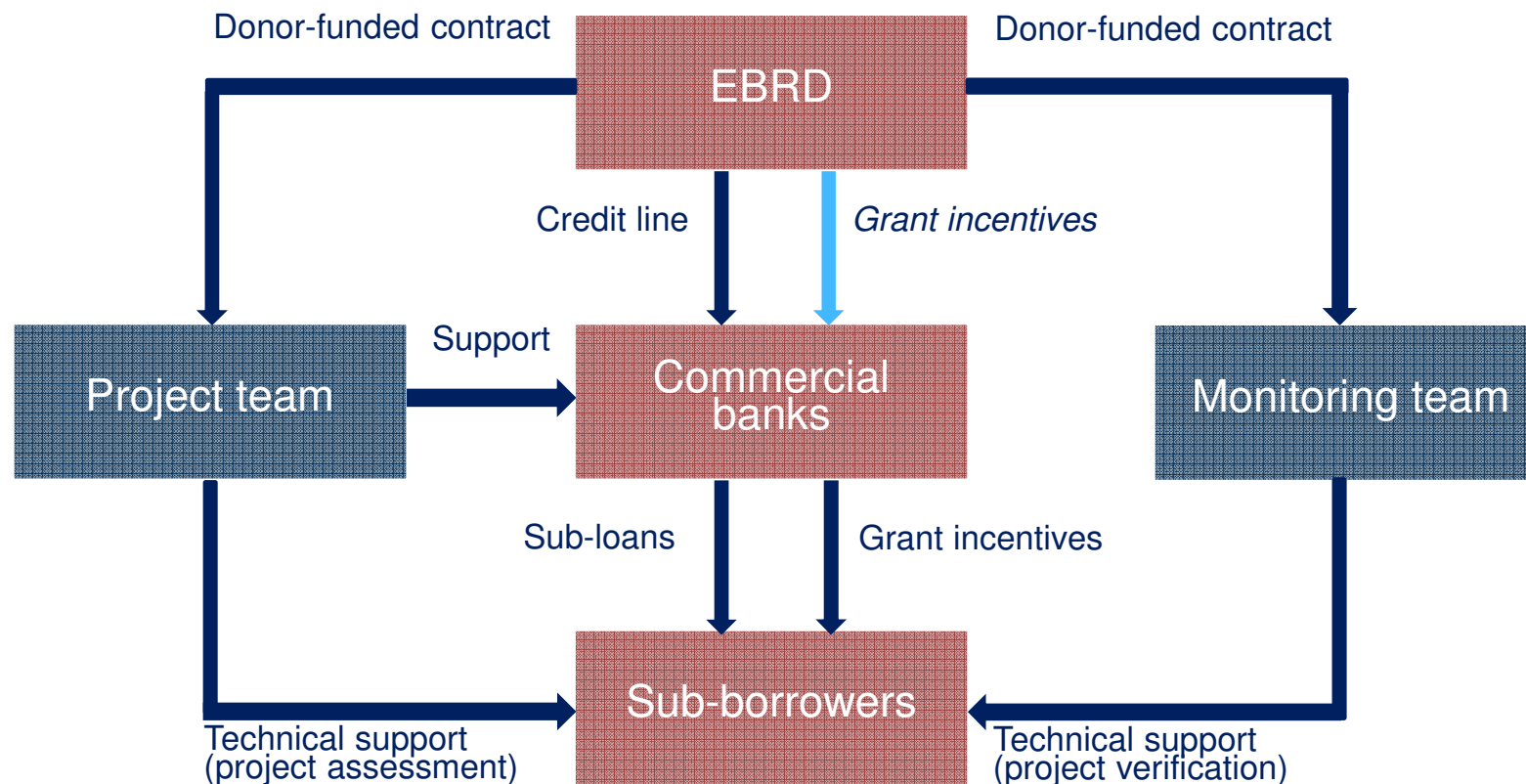
European Bank
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- 3 loans of total \$100m with \$25m EE components identified through Energy Audits:
 - Installation of deep pressing pulp presses
 - Modernisation of vacuum pans
 - Replacement of boilers, automation of TPS
 - Installation of VSDs
- Energy savings of 25-30%; carbon emission reduction of 80 kton CO₂e per annum
- Carbon credits purchased by MCCF (\$2.5m)
- Energy Management Training for 20 engineers
- €325k Energy Efficiency Management System grant incentive
- A follow-up biogas study
- A new \$12m loan for biogas plant (one of the largest in Ukraine) in 2012
- A new \$20m EE project signed in June 2016



Sustainable Energy Financing Facilities: SEFFs – leveraging local banks

SEFFs are effective in reaching a wide range of industrial and residential clients



UKEEP:

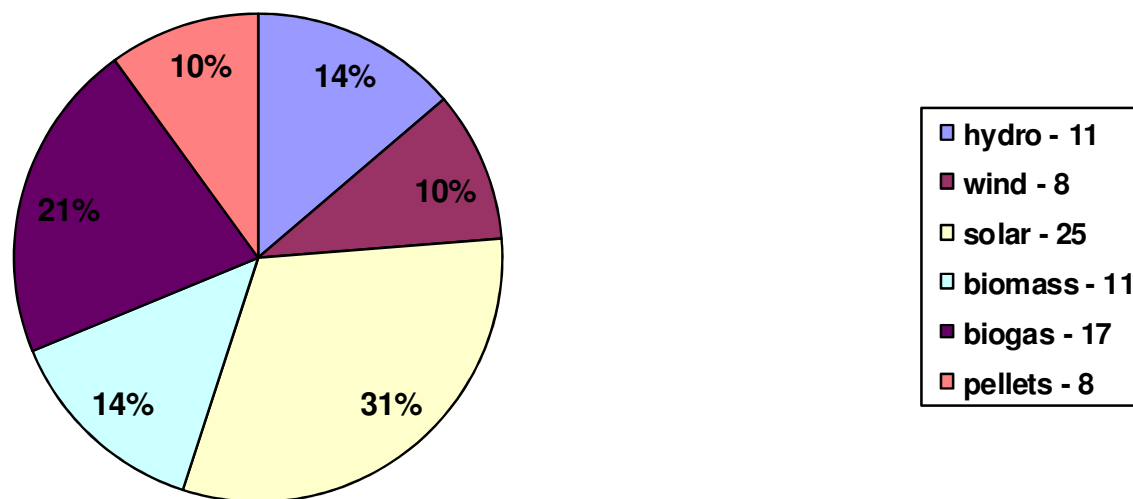
Ukraine Energy Efficiency Credit Line

- €200 million in 2007-2015 for Ukrainian banks: UkrExim - \$150m; Kreditprom - \$10m; Forum - \$25m; Megabank - €10m
- Over € 5 million from Sweden, Austria, EU for:
 - Project preparation, marketing, information campaign
 - Project evaluation and assistance to end-users and banks in project design through energy audits
- Impact to date: 300 projects screened; 50 energy audits completed; 100 projects worth € 140 million committed



USELF: Ukraine Sustainable Energy Lending Facility

- USELF is now replenished by another EUR 70 million (EUR 50m of EBRD and EUR 20m of Clean Technology Fund) – Phase II
- Over 100 applications received, 20-25 projects are feasible, most of them require additional work and technical assistance



- In 2011-2016, the EBRD financed 11 projects – 4 solar, 2 wind, 2 small hydro, 2 biogas and 1 biomass

Ukraine Residential Energy Efficiency Financing Facility (IQ Energy)

- Investment potential – EUR 15-20 billion
- EBRD policy dialogue from 2009:
 - Market Assessment Report
 - www.teplydim.com.ua
 - Draft law on EE in buildings, EPBD regulations, secondary legislation
- EUR 75 million financing via Ukrsibbank, Megabank and OTP for residential energy end-users (owners of flats, houses, OSBBs)
- EUR 15 million from E5P available for incentive payments (15-20% for individuals, 25-35% for OSBBs)
- For energy efficiency materials and equipment, including installation works, in line with Technology Selector
- Kick-starting the market for EE equipment, materials, services
- **www.iqenergy.org.ua and hot-line: 0-800-50-57-17**



ESCOs and Energy Performing Contracts



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- Pilot project in Dnipropetrovsk – EUR 10 million for EE in public buildings (84 schools and kindergartens)
- New laws to introduce the legal basis for ESCO business drafted by the EBRD and approved by the Parliament in 2015
- EUR 100 million Financing Framework with EUR 25 m concessional co-financing from CTF under preparation
- Based on Dnipropetrovsk experience for the large cities at this stage
- Project Implementation Unit to support cities and ESCOs



FINTECC

Financing Technology Transfer

POLICY DIALOGUE AND KNOWLEDGE MANAGEMENT

- Development of industry standards, guidelines, methodologies and technology baseline information
- Regulatory support to the Government to improve/develop legislation needed for the adoption of new climate friendly technologies
- Visibility and knowledge sharing activities

TECHNICAL ASSISTANCE

- Assistance to potential clients in identification of viable technology investments via energy audits, assistance with R&D, trainings, certification

INCENTIVE GRANT PROGRAMME

- Incentive grants provided ex post for EBRD projects that include investments into eligible technologies
- Covers up to 25% of eligible costs but capped at a maximum of USD 1,000,000
- Expected to support up to 15 projects in Ukraine between 2016 and 2018

TECHNOLOGIES CONSIDERED:

Co-generation and tri-generation, back-pressure turbines, heat recovery, waste and waste water treatment, energy management system, biomass/biogas installations system



- **Policy Dialogue and Technical Assistance: EUR 4 million from NIF**
- **Incentives: USD 7 million from the Global Environment Facility**

Thank you!



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