

Financing Sustainable Energy: EBRD Experience and Plans

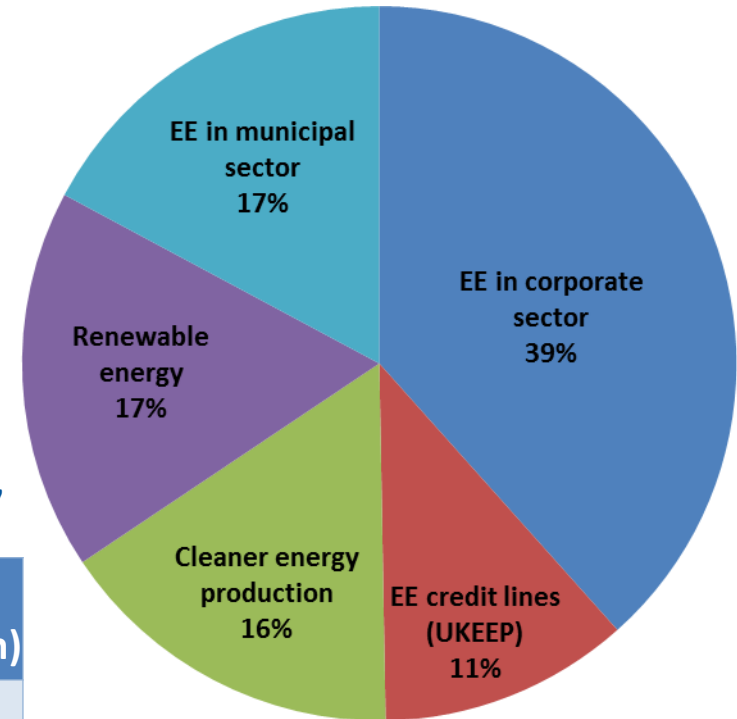
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EBRD – a largest financial investor and facilitator of sustainable energy

- Portfolio of €12 bln in 380 projects (€1 bln annually)
- Sustainable energy - 30% of all financing



Sustainable energy investments in Ukraine, 2006-1H2017

	Number of projects	Amount (EUR million)
EE in corporate sector	67	960
EE credit lines for SMEs/RE	23	283
Cleaner energy production	9	397
Renewable energy	31	430
EE in municipal sector	22	430
TOTAL	152	2,500

USELF: Ukraine Sustainable Energy Lending Facility



USELF

Ukraine Sustainable Energy Lending Facility

INTEGRATED APPROACH

USELF helped to open and develop the renewable energy market in Ukraine via:

- Policy dialogue since 2008 (FIT law and the NERC support)
- TA to developers, incl. technical, financial, environmental, legal (funded by the GEF, SIDA, Japan)
- EBRD DLF-type financing for developers
- Substantial concessional co-financing from the Clean Technology Fund (EUR 50 m)

Over 170 projects screened and 11 projects financed – 4 solar, 2 wind, 2 small hydro, 2 biogas and 1 biomass in 2011-2016



ECO-OPTIMA WIND FARM

13.2MW wind farm in the Lviv region:

EBRD 10-y loan	€ 9.5 million
CTF 15-y loan	€ 3.8 million
Sponsor equity	€ 7.2 million

Wind farm successfully commissioned and operational since February 2015

Biomass/biogas projects in municipal sector



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- Lviv Sludge Biogas – 15 mcm/y, 4.5 MWe, € 22 m, 2016
- DH biomass:
 - Cherkasy (2.5 MWt) operational
 - Ivano-Frankivsk (10MWt), partly op-l
 - Ternopil (10MWt)
 - Lutsk (5MWt)
 - Chernivtsi (10 MWt)
 - **NEW** – Zhytomyr CHP (2MWe+10MWt)
 - **NEW** – Lviv CHP (5MWe + 20 MWt)



Biomass/biogas projects in corporate sector

- Agri biogas:
 - Astarta – 14.4 mcm/y, € 10m, 2013
 - MHP – 18 mcm, 5 MWel, € 12m, 2013
 - Danosha – 3.5 mcm/y, 1.5MWel, €3.9m, 2014
- Agri biomass:
 - Slavuta – 6 MWt, € 3.8m, 2014
 - Nyva (straw) – 4 MWt, € 2m 2015
 - Dniprovskia Agri – 8 MWt, € 4.3m 2017



UKEEP: Ukraine Energy Efficiency Credit Line

- €200 million in 2007-2015 for Ukrainian banks: UkrExim, Forum, Kreditprom, Megabank
- **Renewable Energy**
- Total EUR 40 million loans
- In 16 projects:
 - 7 biomass, 5 solar, and 4 small hydro power projects
 - Over 20 MWe and 45 MWt installed



All Renewable Energy Projects



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Programme	N	MWe	MWt	M EUR
Stand-alone	3	57	2	52
USELF	11	81	0	40
Agri sector	6	20	18	36
Municipal sector	8	11	67	60
UKEEP	16	20	46	40
TOTAL	44	189	133	228

Ukraine Biomass Supply Value Chain Development Programme

Key objectives:

- Partnership among the key agri-companies in Ukraine to promote the use of biomass resources and develop biomass supply value chain
- Support companies with knowledge and expertise on best available technologies and practices related to biomass supply and use
- Provide a dedicated project preparation support for biomass supply and biomass use projects
- Provide EBRD financing blended with grants (FINTECC Ukraine, GEF) and concessional co-financing
- Improve legislative and regulatory framework needed to develop biomass supply value chain



Thank you!



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