Financing renewable and efficient district energy systems: Opportunities and challenges
Energy Solutions for Cities of the Future

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EBRD
Who we are

An international financial institution supporting the development of sustainable well-functioning market economies

Highest credit rating (AAA/Aaa)

Owned by 66 countries and 2 inter-governmental institutions (the EU and EIB)

€30 billion authorised capital

1991 Established
1992 Russia and 11 other members of the former Soviet Union join
2007 The Czech Republic becomes the first country to “graduate” from the EBRD
2012 Starts investing in Egypt, Jordan, Morocco and Tunisia
2016 25th anniversary; China becomes 67th member
2017 Lebanon became a country of operation and the Bank also commenced operations in West Bank and Gaza

Shareholding structure

- EU 28 Countries: 63%
- USA: 10%
- Japan: 9%
- Others: 11%
- EBRD region excluding EU: 8%

1. Includes European Community and European Investment Bank (EIB) each at 3%. Among other EU countries: France, Germany, Italy, and the UK each holds 8.6%
Where we invest
Increasing footprint
District energy operators in ‘Economies in Transition’ require significant investment to upgrade aging network and consumer infrastructure and make greater use of renewable or waste energy sources. They face different challenges than those seen in Western Europe and may have contrasting investment needs or policy priorities.
EBRD DE Project Approach

DE Company Level
- Sub-Sovereign loans often co-funded by donor grants
- PPPs, private loans and equity investments
- Heat generation (excl. coal), network and demand side improvements
- Assistance with feasibility through to implementation

Country or Sector Level
- National framework agreements
- Policy paper series “Making District Heating Happen”
- Technical cooperation projects with Government agencies
EBRD DE Financing Approach

Financing Options

- Sovereign-backed loans
  - Central Government
- Municipal loans or utility loans guaranteed by municipality
  - Municipality
- Quasi corporate utility loans
  - Utility Company
- Loans to PPP/private companies
  - Private Company or SPV

Investment Size

€ 5 million to € 150 million
Aim to enable renewable DE investment in:

- Albania
- Bosnia and Herzegovina
- Kosovo
- Montenegro
- North Macedonia
- Serbia

Funding is available for:

- Policy support for renewable DE
- Project preparation and feasibility
- Capacity building and networking

Special focus on solar DH

ReDEWeB@EBRD.com
EBRD Green Cities Framework

€1 billion framework to support cities to identify, benchmark, prioritise and invest in Green City measures to improve urban environmental performance through:

Delivery of strategy and policy support
- Green City Action Plans (GCAP)
- Policy dialogue

Facilitating and stimulating Green City infrastructure investments
- Urban Transport
- District Energy
- Solid Waste
- Renewable Energy
- Water & Wastewater
- Building Energy Efficiency
- Street Lighting
- Climate Change Resilience

Building capacity of city administrators and key stakeholders

www.ebrdgreencities.com @EBRD #EBRDgreen #EBRDGreenCities
GCAP development and Green City projects have received donor support from:

- Green Climate Fund – approved €87m of funding for EBRD Green Cities – funding is available to 9 countries:
  - Albania
  - Armenia
  - North Macedonia
  - Georgia
  - Jordan
  - Moldova
  - Mongolia
  - Serbia
  - Tunisia

[Images of flags from different countries]
Supporting the City of Banja Luka for the purchase of an equity stake in a new district heating company ‘Eko Toplane’.

- New 49 MW biomass boiler plant replacing heavy fuel oil based capacity
- Green City Action Plan preparation
- City adopted a new tariff structure

EBRD Finance: €8.35 million
GHG Reduced: 45,750 tonnes of CO₂ eq / yr
Abdali District Heating & Cooling Project
Jordan

EBRD Finance  € 26.6 million
GHG Reduced  ~15,000 tonnes of CO₂ eq / yr

New system for a major commercial, leisure and residential redevelopment in Central Amman operated by the part-private Jordan District Energy Company.

• New 110 MW (31,000 TR) ammonia cooling plant
• ~40% energy savings
• Reduced peak electrical demand
• Minimal water consumption (air cooled plant)
In Conclusion

The Bank will continue to support technical innovation in the sector and enhanced private sector participation.

- Renewable heat generation (biomass, solar and geothermal), EfW and waste heat utilisation
- Thermal storage and integration with renewable electricity generation
- Support for PPPs
- Equity stakes or direct investment
Questions

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Eligibility Criteria

In order to become a part of EBRD Green Cities, cities must meet the following criteria:

1. Located in EBRD’s Countries of Operation
2. Population ≥ 100,000
3. Conduct a Green City Action Plan
4. Initiate ‘Trigger’ Infrastructure Project

   In one of the following sectors:
   • Solid Waste
   • Water & Wastewater
   • Urban Transport
   • District Energy
   • Public Building Energy Efficiency
   • Renewable Energy
   • Climate Change Resilience
   • Street Lighting

5. Projects must target a 20% reduction in GHG emissions, energy or resource consumption, or pollution or help city adapt to climate change