



European Bank
for Reconstruction and Development

Challenges and solutions for financing renewable and efficient district energy systems

Renewable energy in DE systems

December 2019

Green Economy Transition (GET)



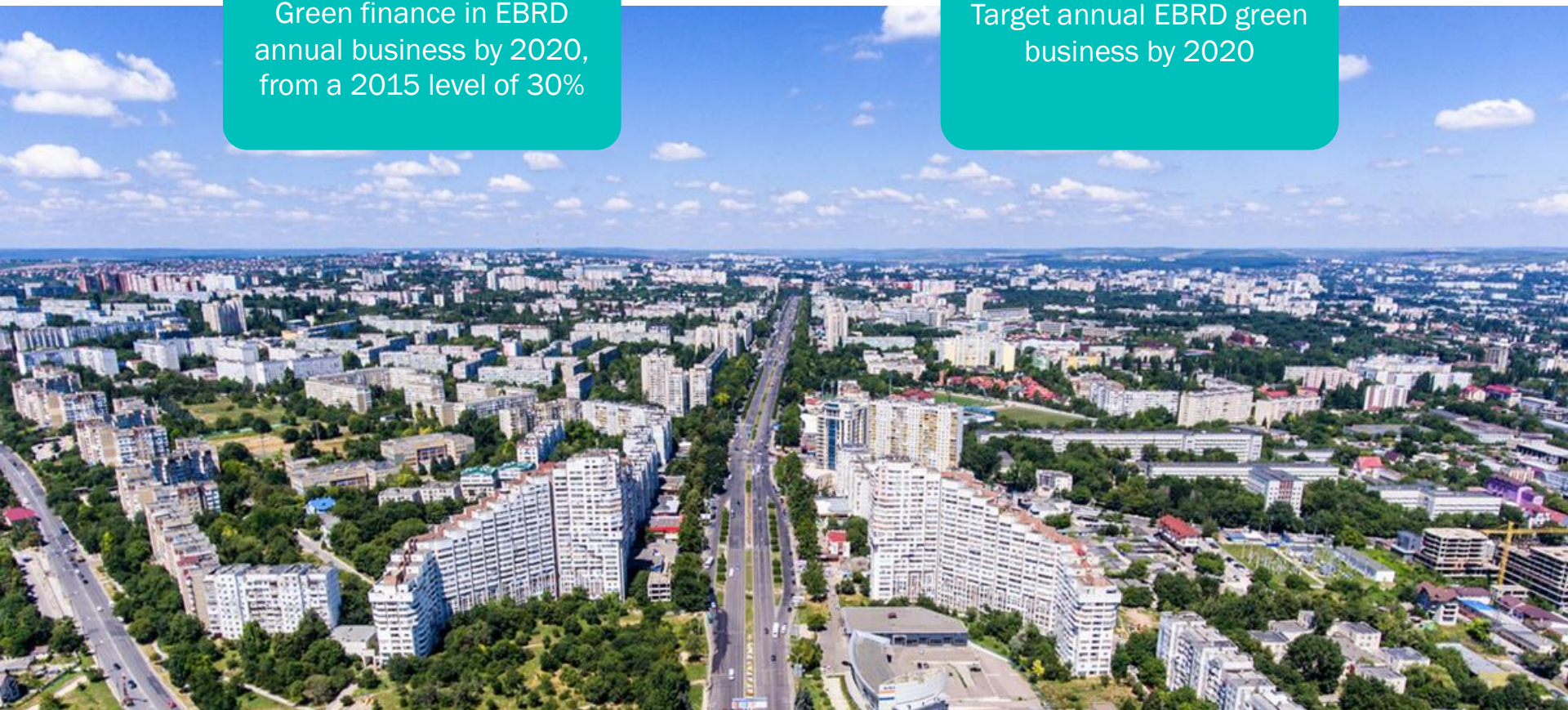
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40%

Green finance in EBRD
annual business by 2020,
from a 2015 level of 30%

€ 4 billion

Target annual EBRD green
business by 2020

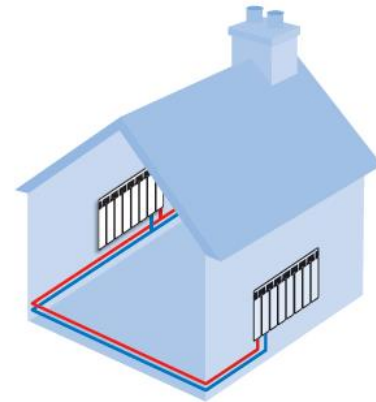
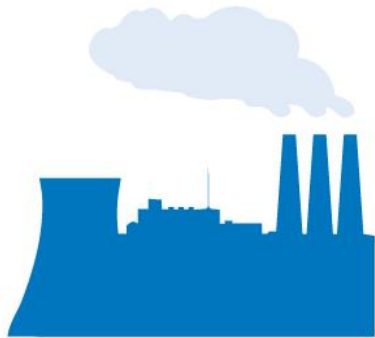


The Situation



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District energy operators in 'Economies in Transition' require investment to upgrade aging infrastructure, improve efficiency and integrate low carbon energy sources. They face different challenges than those seen in Western Europe and may have contrasting investment needs or policy priorities.



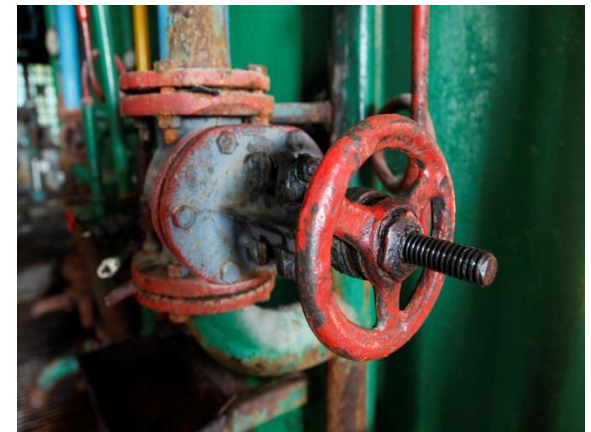
DE Company Level

- Sub-Sovereign loans often co-funded by donor grants
- PPPs, private loans and equity investments
- Energy efficiency, meter based billing and improved standards of service
- Assistance with feasibility through to implementation



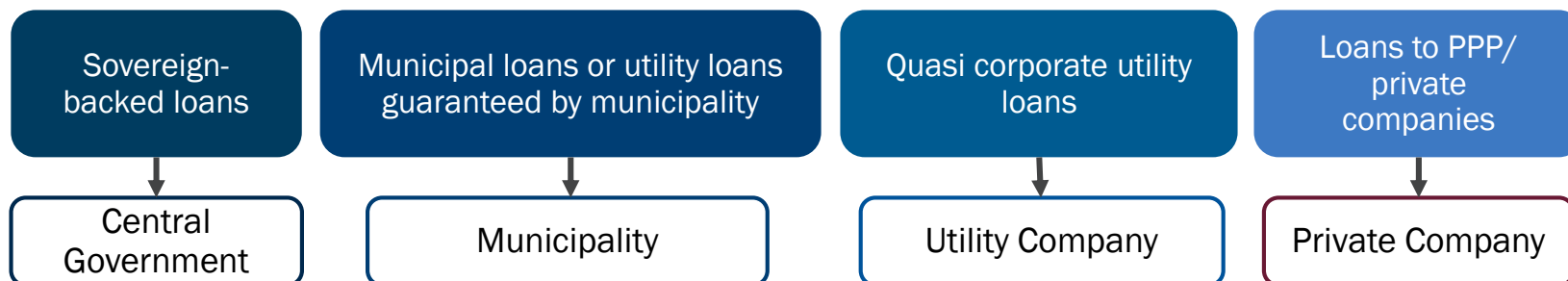
Country or Sector Level

- National framework agreements
- Technical cooperation projects with Government agencies



EBRD DE Financing Approach

Financing Options



Investment Size

€ 5 million to € 150 million



DE Project Types

- ESCOs: energy savings company whereby the private sector shares efficiency gains with the public sector (Energobit Esco Romania)
- District Heating: independent heat supply to the district heating network (E Energija)
- Lease contracts/Concessions (Dalkia Polska)
- Investment in existing subsidiary where EBRD would hold typically 30-35% stake to facilitation investments (privatisations, concessions or lease contracts)

Case study - Dalkia Polska, Poland

- EUR 70 million invested alongside Dalkia Group for a series of investments in Poland over the 1998-2004 timeframe.
 - EBRD held a 35% stake in Dalkia Polska. Dalkia International remained the controlling partner with a 65% stake.
 - EBRD's funds allowed Dalkia Polska to invest throughout the region in ESCO type projects as well as district heating opportunities (privatisations, concessions, lease contracts).
 - EBRD exit in mid 2010 by selling shares back to Dalkia
- ➔ EBRD's involvement has enabled increased private sector participation, as well as improved energy efficiency and cost effectiveness at operating companies.



Renewable District Energy in the Western Balkans



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



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€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	Water & Wastewater
District Energy	Building Energy Efficiency
Solid Waste	Street Lighting
Renewable Energy	Climate Change Resilience



Building capacity of city administrators and key stakeholders

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 \geq 100,000

(3) Conduct a Green City Action Plan

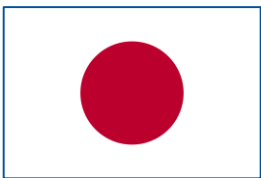
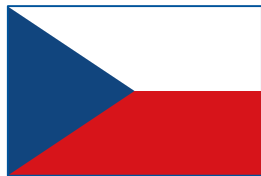
(4) Initiate 'Trigger' Infrastructure Project

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

GCAP development and Green City projects have received donor support from:



**GREEN
CLIMATE
FUND**

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

Looking Ahead



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

- Renewable heat generation (biomass, solar and geothermal) and EfW
- Thermal storage and integration with renewable electricity generation
- Improved data collection and management
- Support for PPPs
- Equity stakes or direct investment



Questions



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