Innovative financial instruments: the role of DHC & CHP in delivering Smart City Projects

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Long-term finance promoting European objectives

- Shareholders: 28 EU Member States

Key figures 2012
- European Union: EUR 64.0 bn
- Partner countries: EUR 7.7 bn
- Total lending: EUR 71.7 bn
- Borrowing: EUR ~75.0 bn
- Subscribed capital: EUR 242.4bn (increased by EUR 10bn)
Smart cities??

Smart cities targets

- Development of human and social capital
- Improving traditional transport and modern ICT infrastructure
- Support to sustainable economic development
- Wise management of natural resources
- Participation of citizens in governance of cities
- High quality of life

Sustainable cities

- Many parallels with smart cities
EIB relevant lending priorities

- Energy: revised energy lending policy published in Summer 2014 targeting:
  - Energy efficiency
  - Renewable energies
  - Energy networks
  - Security and diversification of internal energy supply
  - RDI

- Sustainable communities
  - Urban public infrastructure

- Climate change
EIB energy lending by sector 2013

Total lending 10.77 bn EUR
EIB financing of RE and EE projects
Financial Instruments

- EIB plays a catalytic role to mobilise financing
- Broad range: from senior loans to equity
  - Loans to large individual projects: i.e. cogeneration, district heating, multi project investment programme
  - Global & Framework loans to finance small-medium sized projects through commercial banks
  - Outside the EU: EU mandates and sustainable energy facility
- Specific instruments:
  - RSFF, investment and carbon funds, Energy Efficiency Finance Fund, Green for Growth Fund, Deep Green etc.
Advisory services, technical assistance

- Expansion of advisory services
  - ELENA: EE&RE in the urban environment
  - Jaspers: project preparation for EU structural funds
  - Other TA (mainly outside the EU) e.g. Mediterranean Solar Plan
EIB sector specific criteria

- District heating networks:
  - Heat should be supplied predominantly through RE, high efficiency cogeneration or heat recuperation (industry or waste incineration)
  - Long term heat supply costs should be competitive (financial and economic approach)
  - Clear long term vision on heat demand (e.g. masterplan)

- Cogeneration:
  - Comply with high efficiency cogeneration criteria of EU EE directive

- Biomass sourcing:
  - Medium/long term supply contracts
  - Compliance with sustainability requirements
Some EIB co-financed projects

- **District heating**
  - Extension of DH network in Paris, FR
  - Upgrading of DH network in Mannheim, DE
  - Extension of DH network in several cities in Italy (in general part of a utility investment programme)

- **Cogeneration**
  - Biomass
    - FL for biomass cogeneration (linked to DH or industry) in FR
    - Small scale biogas plants in several EU countries
  - Gas cogeneration (difficult currently)
    - Several projects in Italy (mainly CCGT’s)
    - Small scale plants in several EU countries
  - Waste to energy
    - Revamping and extension in Vienna
European Energy Efficiency Fund

- Investment areas: e.g. EE in public and private buildings, efficient cogeneration + district heating, decentralised RE, clean urban transport, modernisation of infrastructure such as street lighting or smart grids
- Project CAPEX: ~ 5 to 25 mEUR
- Beneficiaries: local/regional public authorities and public bodies, PPP, ESCO or SPV are possible
- Financing in form of: i.a. loans, guarantees, forfeiting schemes (to finance ESCO projects), equity shares
- Fund manager: Deutsche Bank; (www.eeef.eu)
- Project examples for DH:
  - biomass cogeneration plant supplying a DH network in Rennes FR,
  - construction or extension of DH networks in IT, UK in preparation
DEEP Green Concept (in prep)

DEEP Green Initiative

- Banks Compartment
- Public sector Compartment
- ESCOs Compartment
- Utilities Compartment

- Debt for Energy Efficiency Projects Initiative aims at developing a suite of new financial products, namely for banks, public sector, ESCOs and utilities.
- These new products will increase access to lending to EE projects.
- New products under DEEP Green will aim at aggregation and de-risking of EE projects to allow for debt financing.
- In preparatory phase with expected support from European Commission
Technical assistance ELENA in short

EC-EIB cooperation to support local and regional authorities to prepare large scale investments

- Technical Assistance facility: managed by EIB; funded by EU budget
- Investment areas: energy efficiency; local renewables; clean urban transport; local infrastructure
- Beneficiaries: local/regional public authorities and public bodies
- 90% funding rate (grant) for additional staff and external expertise
- Investment leverage required (performance ratio min. 20), min. 30 mEUR
- Progress: 28 projects supported; 50 mEUR grants; targeting 2.8 bnEUR investments
- More information: www.eib.org/elena
- Examples in cogeneration and DH sectors
  - Decentralised Energy in Greater London
  - Two DH projects in NL (Purmerend, Sittard-Geleen)
Some conclusions

- EU policies support DH&C and cogeneration, but implementation at MS level may not be sufficient to achieve the targets set.

- Funding schemes and opportunities have improved, but may still need adaptations in order to respond to market needs.

- EIB is present in the concerned sectors:
  - proposing different financing schemes,
  - needs partners in view of aggregating small scale projects,
  - is open for new projects (fulfilling the Bank’s criteria).
For more information...

Thank you very much for your attention

http://www.eib.org/