

# Carbon Finance and Sustainable Technology

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**Carbon Expo 2007**

# EIB Climate Change Policy

- First formal EIB policy endorsed by Board of Directors in 2002.
- Main objectives – in support of sustainable development - have been refined over time:
  - o To promote low carbon technologies
  - o To stimulate the carbon market
  - o To help poorer countries develop an appropriate response to climate change
- Targets:
  - o Renewable energy: 50% generation plus Euro 6-800 million p.a. of new signatures
  - o Direct footprint: carbon neutral

# EIB Climate Change Initiatives I



- **Climate Change Financing Facility (CCFF)**  
Preferential terms for projects that result in a significant reduction in greenhouse gas emissions.
- **Climate Change Technical Assistance Facility (CCTAF)**  
To help promoters develop project-based carbon credit potential.

# EIB Climate Change Initiatives II

## Carbon Funds

- o 2 fully operational (EIB-EBRD MCCF; EIB-WB CFE)
- o 1 approved (EIB-KfW CPP)
- o 1 under preparation (Post 2012)

## Multiple aims:

- o To help Member States and companies comply with mandatory emissions caps
- o Generally, to promote investment in low carbon technologies
- o More particularly, to help poor countries achieve sustainable development - foreign investment and technology transfer
- o Broadly to develop the carbon market

# EIB Climate Change Initiatives III



## Other Initiatives

- o Further development of the CDM market, e.g. TA for project identification in S & E Med; dedicated consultancy/financing for S & M CDM projects, globally
- o Modifications in analytical approach, e.g. factoring the economic cost of carbon into ERR calculations
- o Process change - more systematic identification and screening of projects
- o Internal carbon management - reduce and offset
- o Exploring the potential of the "ethical" funds market
  
- o EIB is a member of a large number of Working Groups, sharing knowledge and experience, e.g. ETAP Technology Platforms; with various Commission services; WWF-sponsored "One Planet Business"; MFI initiatives (post-Gleneagles); CEPS

## Role of Carbon Finance ... to lever good projects

- To help identify and develop carbon credit opportunities (technical assistance, e.g. CCTAF)
- To provide LT loan finance on attractive terms (e.g. CCFF) - helping shift the cost of supply down the MC curve, through learning and scale effects
- To provide an additional source of cash, even up-front capital (e.g. carbon funds)
- To provide equity (e.g. carbon funds; dedicated financial vehicles, e.g. EU GEEREF)
- To provide structured project finance (SFF and RSFF)

But (initially) some projects even so may need some form of public finance

## Innovative Technologies Promoted by the EIB: Examples

- Alternative motor vehicle power trains, e.g. hydrogen fuel cells
- Renewable energies, e.g. geothermal, wind, solar, bio-fuels; manufacturing
- Energy efficient industrial processes, e.g. chemicals sector
- More energy efficient fossil fuel power and heat generation, inc. CCGT, DH and CHP
- Carbon capture and storage, e.g. demonstration projects
- Other, e.g. transport demand management systems; energy efficient appliances

Often RDI

## Case Study: Solar Power – Parabolic Trough, Andasol, Spain

### Projects in Spain: AndaSol I & II



- **Technology:** „Solar-only“ Parabolic Trough Power Plant
- **Installed Capacity:**  
2 x 49,9 MW<sub>el</sub>
- **Storage:** Two-tank molten salt storage for 7.7 full load hours
- **Project Site:** Plateau of Guadix, Province Granada
- **Net electricity production:**  
2 x 179.1 GWh/a
- **EPC price:**  
2 x 260 Million €

## Case Study: Solar Power – Tower Mounted Receiver, Solucar, Spain



11 May 2007

SDU, EIB

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## Case Study: Solar Power - studies (ECOSTAR) anticipate important cost reductions

Cost of investment of the last plant of a series, as compared to the cost of one 50 MW Plant.

