



**European  
Investment  
Bank**

## **Brussels Economic Forum 2010**

**“Strategies for a Post-Crisis World: Enhancing European Growth”**

*Financing for a low-carbon society*

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Brussels, 25 May 2010



1.

# The European Investment Bank (EIB)

European priority objectives



- Within the Union:
  - Cohesion and convergence
  - Small and medium-sized enterprises (SMEs)
  - **Environmental sustainability**
  - **Knowledge Economy**
  - **Trans-European Networks (TENs)**
  - **Sustainable, competitive and secure energy**

# 1. EIB Contribution to EU Policy

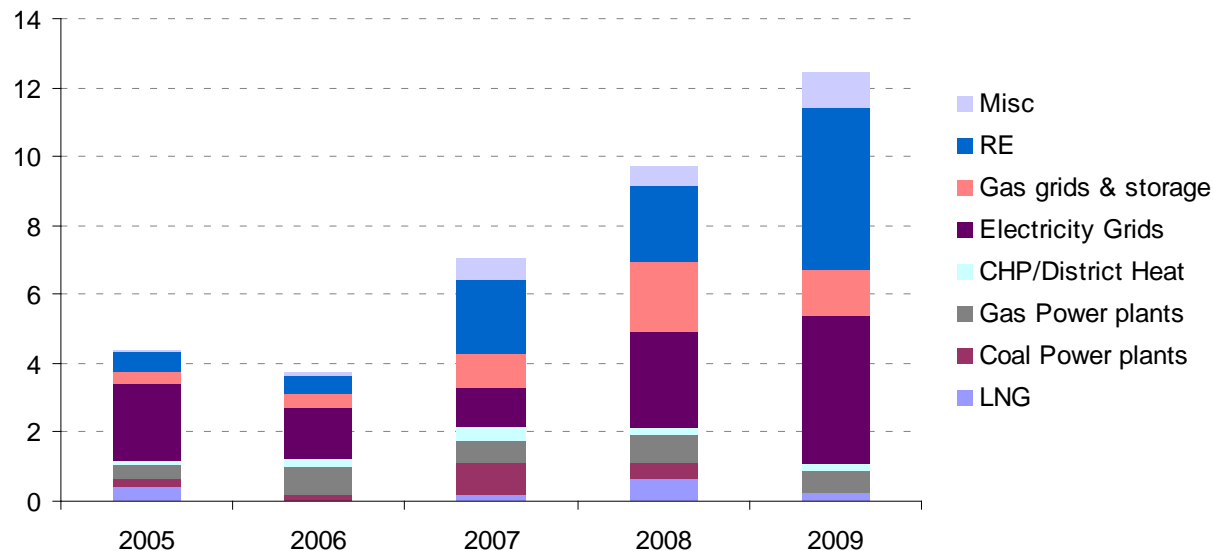
## Energy Lending



EIB energy lending:

- ❖ In 2009, €14.2bn (€13.3bn within EU-27), a 40% increase over 2008
- ❖ During the period 2005-2009 €37.4bn

EIB Energy Lending 2005-2009 (€bn)





1.

# EIB Contribution to EU Policy

## Objectives in the Field of Energy and Climate Change



EIB contribution focuses on six priority areas:

- ❖ renewable energy
- ❖ energy efficiency
- ❖ research, development and innovation (RDI) in energy
- ❖ security and diversification of supply
- ❖ trans-European energy networks (TEN-E)
- ❖ carbon financing

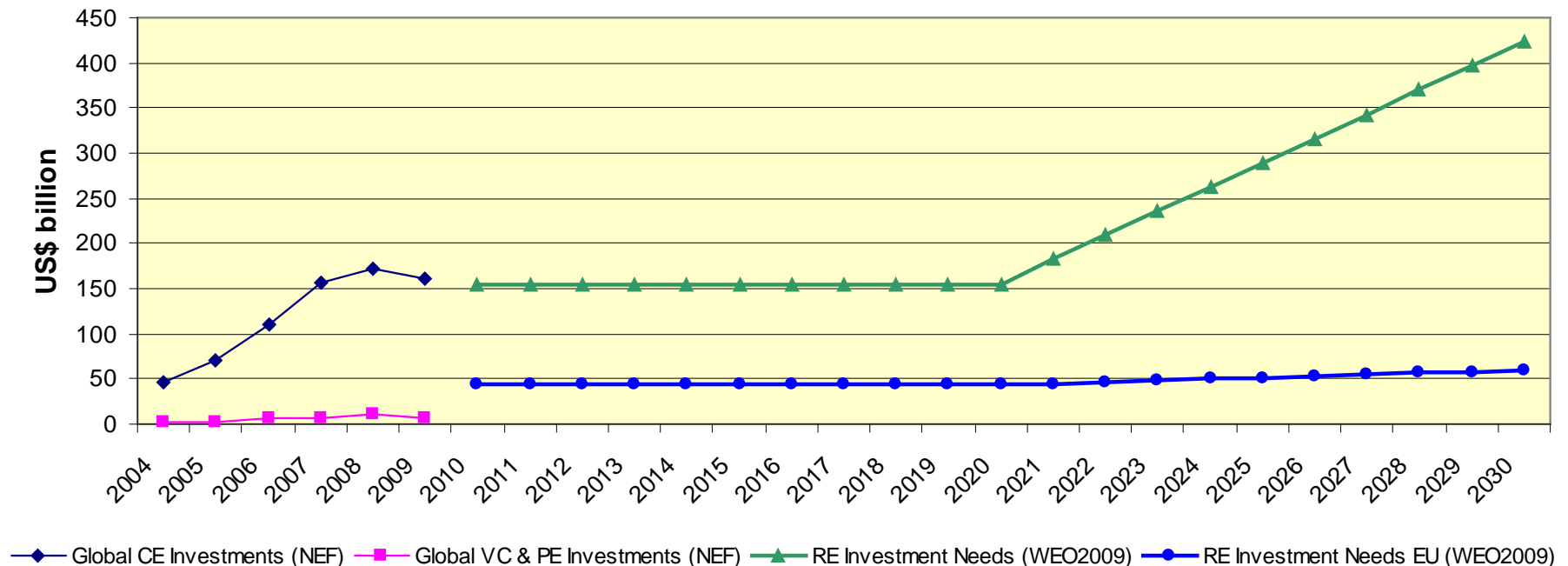


## 2. The Financial Challenge

### A Major Investment Challenge

- ❖ Total investments required in renewables (generation only), depending on the source, are to reach US\$ 400 - 500 billion p.a. until 2030 (*WEO2009*).
- ❖ Total new investment in clean energy currently around US\$150bn, of which asset financing accounted for US\$92bn (*World Economic Forum 2010*)

Investment Needs - IEA Scenario 450ppm

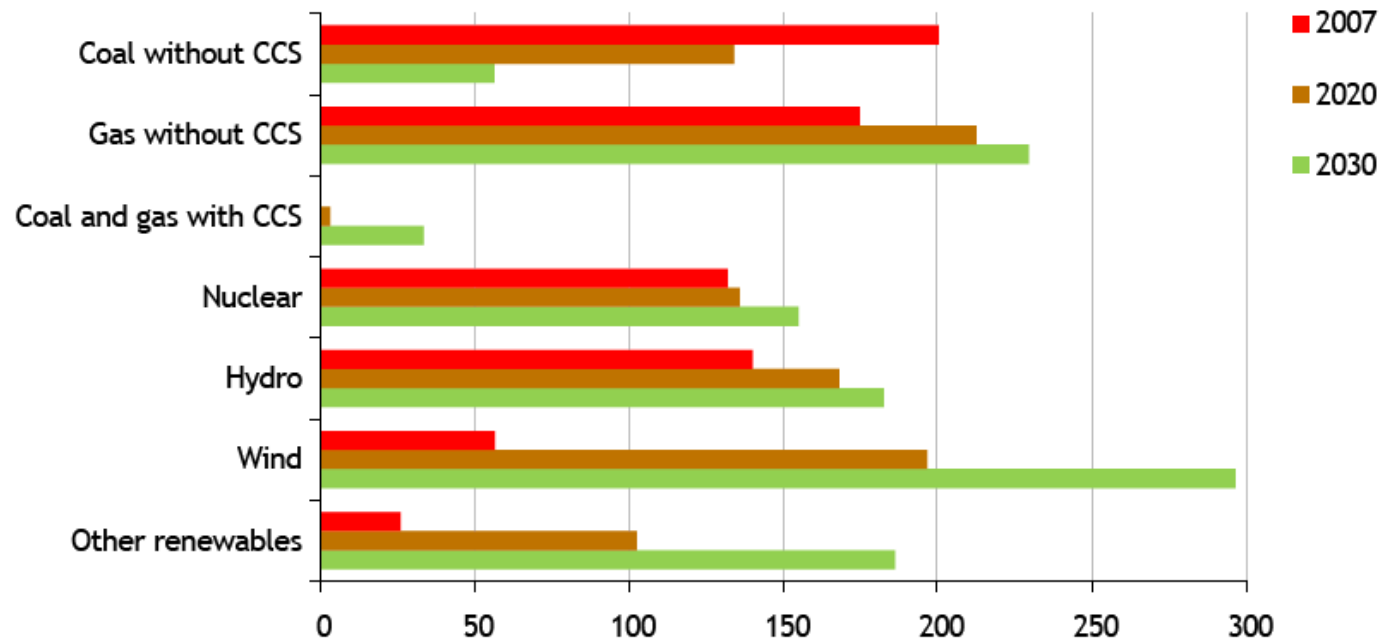




## 2. The Financial Challenge

### A Major Investment Challenge

- Investments (in GW) in the EU27 under the 450ppm IEA scenario (WEO2009) show a clear need for massive zero-emissions RE plants and CCS after 2020.

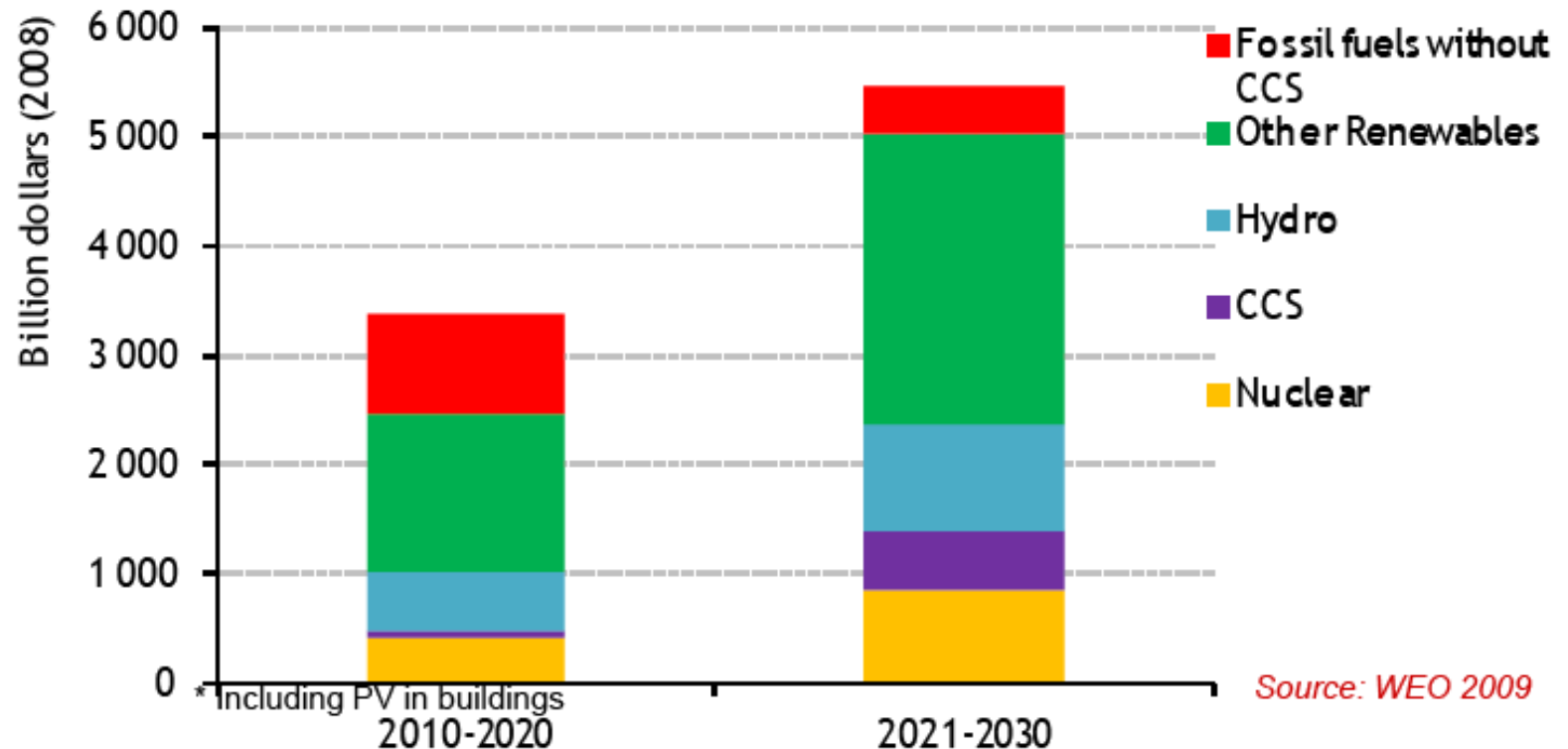




## 2. The Financial Challenge

### A Major Investment Challenge

- ❖ This energy transition translates into vast investment amounts, whichever the roadmap. Investments in R&D, networks and demand management must be added to these numbers.

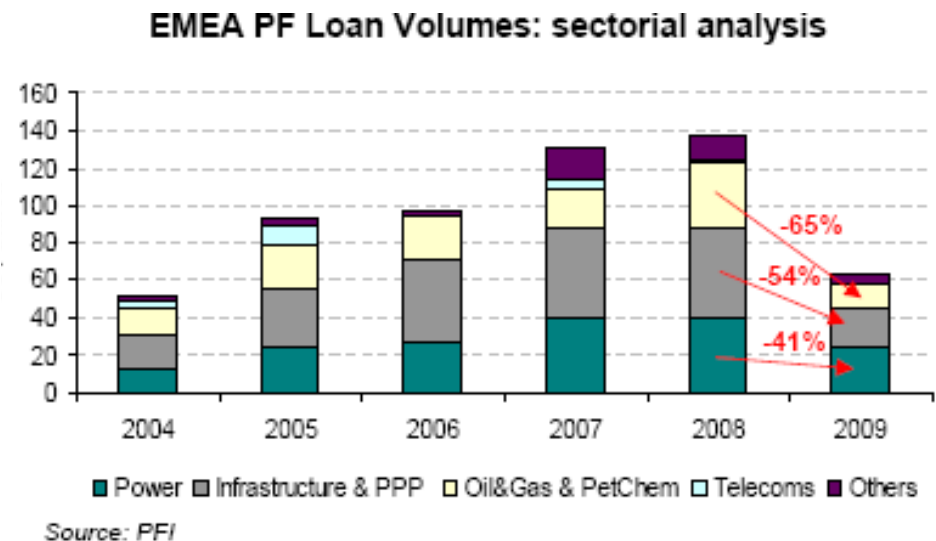
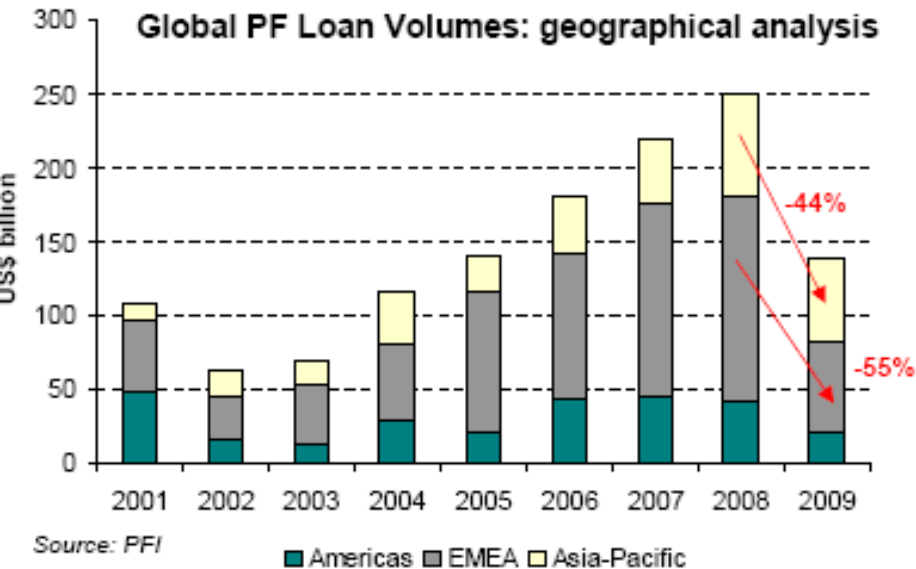




## 2. The Financial Challenge

### A Major Investment Challenge

- ❖ Project financing is a major source of renewable energy financing
- ❖ The global project financing market has halved during the crisis
- ❖ Multilaterals and ECAs now have a much larger share of total PF (in 2009, > 6.5bn\$ in developed countries, < 20bn\$ in emerging markets)
- ❖ 1/3 of total PF lending from banks of only 2 countries : vulnerable market



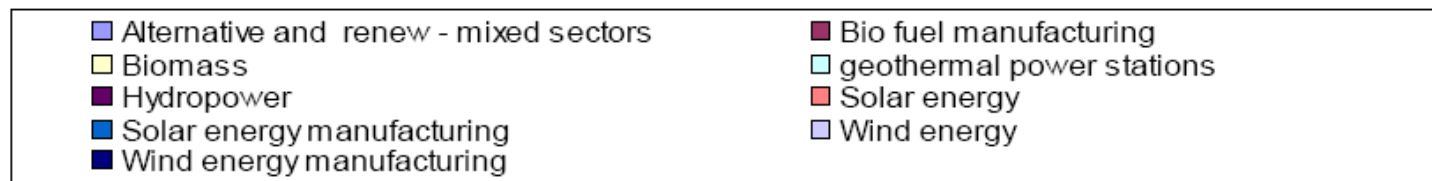
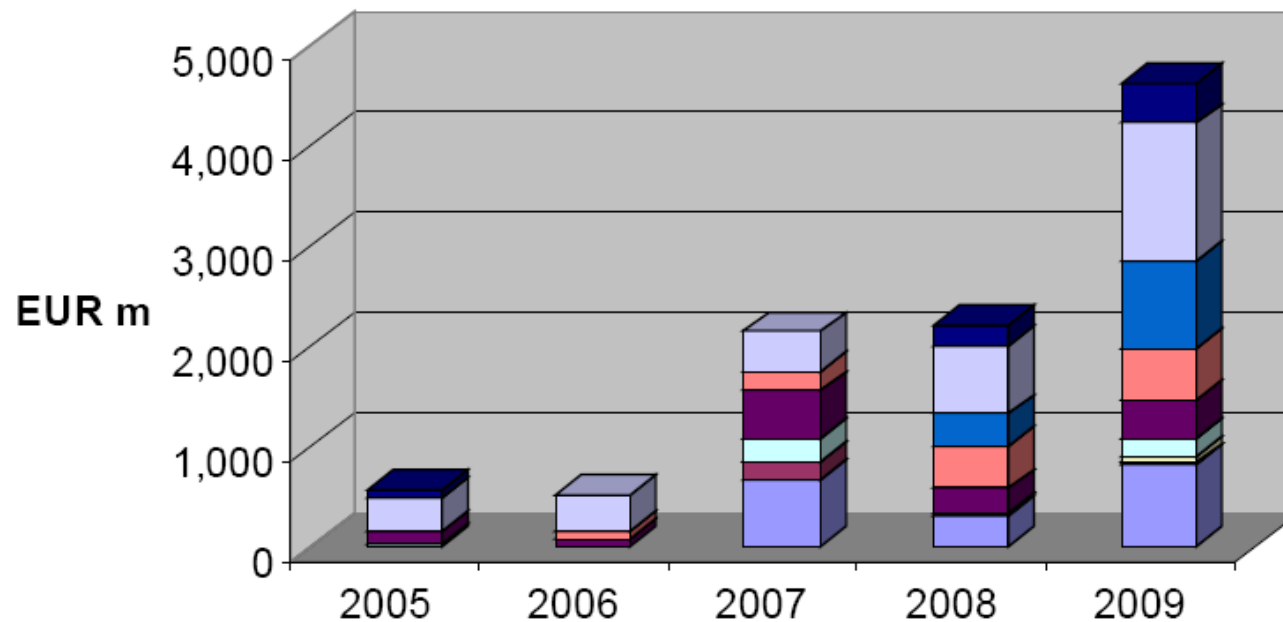




## 2. The Financial Challenge

### EIB Contribution to RE Financing

- ❖ EIB has increased considerably its lending to renewable energies





## 2. The Financial Challenge

### EIB Contribution to Energy Efficiency Financing

- ❖ Projects targeting Energy Efficiency averaged €2.2 billion per annum (8% of total EIB signatures)
- ❖ Includes demand side *and* supply side projects
  - ❖ Power production has focused on combined heat & power and district heating (€405 million in 2007 – 4.8% of energy signatures)
  - ❖ Smaller demand side projects (principally benefiting SMEs) supported through dedicated energy efficiency global loans
    - ❖ (€917 million in 2007)
    - ❖ Significant investment in automotive R&D, almost exclusively for improved energy efficiency
- ❖ Many examples of energy efficiency investments as components of [industrial or accommodation investments](#)
- ❖ The EIB approach is to provide financial frameworks which include building energy efficiency, rather than dedicated instruments.

### 3. EIB Climate/Energy Support



#### EIB Instruments in standard EIB senior loans

- **Structured Finance Facility (SFF):** to fund projects with a higher risk profile and enable equity financing; mezzanine and guarantee operations for infrastructure schemes
- **Investments in Equity Funds:** EIB invests in equity funds, e.g. Marguerite, which in turn take direct equity participations in infrastructure investments
- **European PPP Expertise Centre (EPEC):** Expertise service provided by the EIB and European Commission to support programme and policy development as well as best practice by the public sector for PPP transactions.
- **Joint Assistance to Support Projects in the European Regions (JASPERS):** a joint policy initiative of EIB, DG REGIO, EBRD and KfW to provide assistance for absorption of Structural & Cohesion Funds period 2007 to 2013



# 3. Europe 2020 Strategy

## Communication from the Commission

3 mutually reinforcing priorities:

- ❖ **Smart growth, developing an economy based on knowledge, innovation, education and digital society;**
- ❖ **Sustainable growth, promoting a low-carbon, resource-efficient and competitive economy; and**
- ❖ **Inclusive growth, fostering a high employment economy delivering social and territorial cohesion.**

Seven Flagship initiatives:

- ❖ Innovation union - re-focussing R&D and innovation policy on major challenges;
- ❖ Youth on the move - enhancing the quality and international attractiveness of Europe's higher education system;
- ❖ A digital agenda for Europe - delivering sustainable economic and social benefits from a Digital Single Market based on ultra fast internet;
- ❖ Resource-efficient Europe - supporting the shift towards a resource efficient and low-carbon economy;
- ❖ An industrial policy for the globalisation era - helping the EU's industrial base to be competitive in the post-crisis world;
- ❖ An agenda for new skills and jobs - creating the conditions for modernising labour markets;
- ❖ European platform against poverty - ensuring economic, social and territorial cohesion.



# 3. New Financing Approaches



## Energy Efficiency

- ❖ Energy Efficiency
  - o Tools to finance savings (other than by creating norms) remain unsatisfactory :
    - Development of ESCOs represent limited possibilities at present
    - Renovation of District Heating : creditworthiness of municipalities
    - Investments usually quite small : need to group several projects or credit lines
  - o High transaction costs / complex monitoring
  - o Solutions need to be explored at a European scale :
    - Development of green certificates (Grants to create the enabling infrastructure (smart metering, software, log books...))
    - Securitise consumer loans for retail EE investments to bring forward benefits to saving entity
    - Public guarantee for certain EE financings to reduce costs...



# 3. New Financing Approaches



## Technology & Innovation

- ❖ A limited effort for a major challenge
  - Energy R&D spending from IEA countries budgets peaked in 1980 at \$19bn, and was in 2006 only just in excess of its 1974 level in real terms. Renewable Energies R&D is only about 11% of Energy R&D (around \$750 million p.a.) (*source IEA*).
  - Renewables R&D budgets are at around 0.003% of EU GDP. Numbers higher for EE, though not considerably
  
- ❖ Financing the deployment of technology is key to EU industry, policy targets, and cost of energy. Options include :
  - Absorb higher performance uncertainty via e.g. first loss / mezzanine tranches
  - Guarantee performance liquidated damages of contractors
  - Equity finance for demonstration plants / prototypes, leveraging of grants...



## 3. New Financing Approaches

### Enabling Investments

- ❖ Smart grids and related investments
  - On the utility / TSO side of the meter, combine norms and very long-term financing
  - On the consumer side of the meter: possibility to finance on a large scale metering replacements / monitoring equipment in ad hoc vehicles
  
- ❖ Storage and networks reinforcement :
  - Contribute to both security of supply and acceptance of more intermittent sources. IFIs have a natural role in such projects
  - Large-scale programme to finance networks “gaps” or additional interconnections, often cross-border. Explore idea of supranational temporary owner of network segments (BOT structure) funded on the capital markets ?
  - Specialised funds targeting TENs (e.g. “Marguerite 2020 Fund”)



## 3. Financing the Roadmap

### New EIB initiatives

- Development of new instruments
  - Energy Efficiency Finance Facility
  - SE4F (South East Europe Energy Efficiency Fund)
  - Wind energy facilities to be developed for small scale onshore sector
  - Roll out to the photovoltaic and solar power sector (multi-project, cross-border facilities...)
- Participation in European Technology Platforms devoted to energy
  - EIB has strategic intent to be the 'house bank' of ETPs
  - Zero emission power generation is a particular target
  - Bank has expressed willingness to participate in demonstration projects in the field of Carbon Capture and Storage (CCS)
- EIB's Green Bond





## 3. Financing the Roadmap

### New EIB initiatives

- ❖ Carbon funds provide liquidity for carbon-saving projects, and allow for the hedging of carbon price risk
- ❖ EIB has been very active and innovative with carbon funds
  - Multilateral Carbon Credit Fund (MCCF)
  - Carbon Fund for Europe (CFE)
  - EIB/KfW Carbon Purchase Programme
  - Post 2012 Carbon Fund
- ❖ Example of the Post 2012 Carbon Fund :
  - Addresses current gap in Kyoto carbon market relating to post 2012 uncertainty
  - Fund will acquire post 2012 credits only, thus extending revenue stream of environmentally beneficial projects
  - Banks take risk of non development of market after 2012
  - EIB leading development with NIB, KfW, CDC & ICO
  - €125 million committed



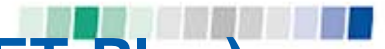
## 3. Financing the Roadmap

### New EIB initiatives

- ❖ **JESSICA (Joint European Support for Sustainable Investment in City Areas)** contributes to urban renovation, a key “enabling factor”

Offering Member States (MS) and Managing Authorities (MAs) the possibility to lever grants from Operational Programmes (OP) into revolving, sustainable financial capacity for urban renewal and development projects.

- ❖ Member States (MS) and Managing Authorities (MA) have the possibility to allocate and contribute resources from OPs, to Urban Development Funds (UDF), Holding Funds (HF), Urban Development Funds investing in PPPs or projects included in Integrated Urban Development Plans (IUDP),
- ❖ Use innovative financing and loan schemes for sustainable urban development, not aggravating public finance and debt.
- ❖ Involve technical, financial, managerial capacity and expertise of IFIs, banks, private sector, for sustainable urban investment.
- ❖ Increasing investment needs for sustainable cities and towns. Available public funds are scarce- need private and banking sector contribution.
- ❖ Existing administrative and technical capacity within Urban authorities often does not correspond to investment needs.



### 3. Strategic Energy Technology Plan (SET-Plan)

- **Goal:** accelerate the development and implementation of low carbon technologies to help reach EU energy and climate change targets
- **Main actions proposed:**
  - Creating **European Industrial Initiatives** to strengthen energy research and innovation
  - Creating a **European Energy Research Alliance** to enable greater co-operation across Europe of the research work going on in universities, research institutes and specialised centres
  - Planning the **transition of European energy infrastructure** to enable a sustainable, interconnected European energy system
  - Establish and run a **regularly up-dated information system** which will "map" technologies – providing information on the latest situation, barriers to technological uptake and the potential of existing technologies
  - Creating a European Community **Steering Group** on Strategic Energy Technologies which will allow Member States and the Commission to plan joint actions and coordinate policies and programmes



### 3. NER-300

- EIB joint action programme with the European Commission and Member States approved by the Commission, Parliament and Council in 2008 – implementation from 2010
- 300 million emission allowances to come from the new entrants' reserve (NER) created under the revised Emissions Trading Directive
- Fund demonstration projects of
  - CCS (carbon capture and storage) and
  - Innovative renewable energy technologies



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