

IEA Bioenergy - ExCo60 Workshop

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The European Investment Bank

Long-term Finance

Promoting European Objectives

- European Union's long-term lending bank set up in 1958 by the Treaty of Rome
- Shareholders: 27 EU Member States
- Support for six EU priority objectives which include energy and environmental sustainability
- As a AAA-rated borrower, EIB can offer its partners advantageous loan rates and longer loan maturities
- EIB will support projects which are risky, economically sustainable and environmentally sound

Supporting the EU Bioenergy Action Plan and the EU Climate Change Programme

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EU Biofuels Policy

- The Energy Policy for Europe (European Council 8/9 March 2007) including the Action Plan 2007-2009 for energy put emphasis on **climate change** and **security of supply**, **renewable energies** and **biofuels in transport fuel**
- A **10% binding minimum target** is to be achieved by all Member States for the share of biofuels in overall EU transport fuel (gasoline and diesel) consumption **by 2020**

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EIB Energy Policy: Sustainable, Competitive and Secure Energy

EIB Energy policy has five core areas:

- Renewable Energy
- Energy Efficiency
- Research, Development and Innovation in energy
- Security and diversification of internal supply
- External energy security and economic development (Neighbour and Partner countries)

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Renewable energy and biofuels in EIB lending

EIB may fund up to 75 % of investment costs when key policy objectives are met in this sector :

Lisbon Strategy for Growth and Employment

- RDI projects promoting 2nd generation biofuel technologies

Climate Change Financing Facility

- supporting production capacities in competitive low carbon technologies

EIB can offer finance through structured finance – its funding reaches a wider set of companies, accelerating projects

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Selection Criteria including Contributions to EU Policy

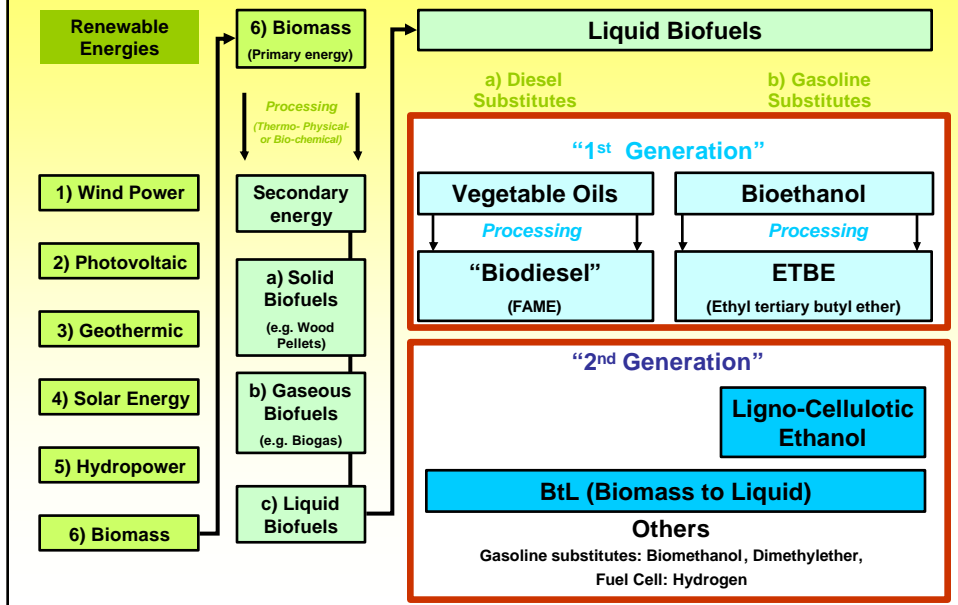
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The EIB project cycle



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Classification of Renewable Energies



Preliminary Screening Criteria for Biofuel Projects

Environment and Climate Change

- Greenhouse Gas Emission savings
- Other environmental effects such as reduction of desertification etc.
- Agricultural practices

Different Policies at Different Levels

- Country's, EU's and EIB's renewable energy policy
- Domestic regulation, taxation in place for biofuels blending
- Other policies

First and/or Second Generation?

EIB's assessment of 1st Generation

- Best feasible technical process at industrial scale ?
the only realistic alternative to achieve EU 2010 biofuel targets
- High quality feedstock needed
- Co-product sales crucial for sustainable project cash flow
- Low conversion costs vis-à-vis 2nd generation

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First and/or Second Generation?

EIB's present strategy;

- Support of sustainable and viable 1st generation projects
- Support of RDI for 2nd generation biofuels
- Avoidance of “White Elephants” and of creation of overcapacities

As EU policies are reviewed;

- Support of best strategy to achieve 2020 targets
- Support of viable technologies for 2nd generation production plants

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ABF Biofuels (UK)

(First biofuels renewable energy project of the EIB)

Project: 2 New Bioethanol plants based on sugar beet and wheat

Annual capacities: 70 m l bioethanol from sugar beet
420 m l from 1.1 m t of wheat

EU Biofuel Target: 5.75 % in 2010 (stands for 1.6 bn l in UK)

Product usage: Individual transport sector

Contribution to EU policy objectives:

- Reduction of CO₂ emissions
- EU Biomass Action Plan
- Diversification of energy supply
- Displace fossil fuels use
- CAP reform on diversification and rural employment

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German Pellets (DE / FI)

Project: New and expansion of wood pellet production based on sawdust and forest residues

Annual capacities: 420 k t in Germany (expansion)
160 k t in Finland (new plant)

Product usage: Individual domestic heatings and industrial use

Contribution to EU policy objectives:

- Cost efficient CO₂ reduction measure
- EU Biomass Action Plan
- SME
- Diversification of energy supply

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Indirect Lending Support for Biogas (EU)

Project: >2000 small decentral biogas plants based on different feedstocks
Investment costs: 0.3 – 2 m EUR per facility

EIB contributed to investments: >1 bn EUR since 2004

Product usage: Electricity and increasingly CHP production

Contribution to EU policy objectives:

- Reduction of CO₂ emissions
- EU Biomass Action Plan
- SME
- Diversification of energy supply
- CAP reform on diversification and rural employment

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Issues for Design and Implementation

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Issues for Design and Implementation

- **Market / Supply & Demand**
- **Location of the Plant**
- **Capability of Promoter**
- **Innovation – Know-how Generation-Demonstration**
- **Other indirect effects**

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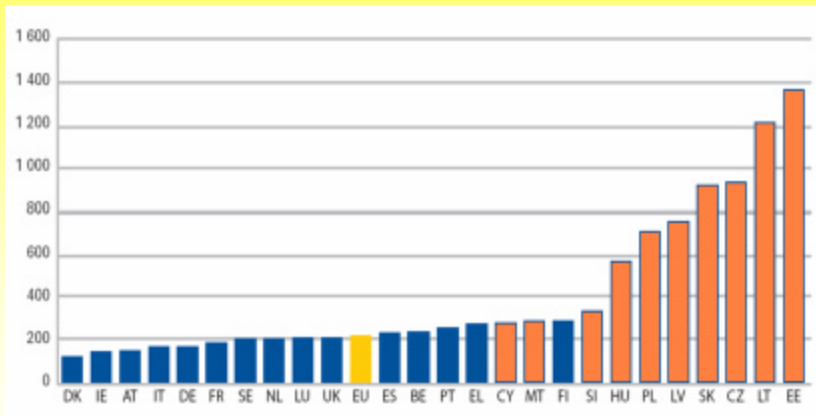
Extra Opportunities Interesting in CEE

Can CEE jump to first best ?

- **Urban Renewal**
- **Waste water modernisation**

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Energy Intensity



Energy intensity in 2003 (in toe/million EUR of GDP at 1995 market prices) in EU-25

Source: Enerdata (calculations based on Eurostat data)

http://ec.europa.eu/energy/efficiency/doc/2005_06_green_paper_book_en.pdf

(Green Paper on Energy efficiency)

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Conclusions

- The EIB is a policy-driven EU finance institution for long-term lending
- Renewable Energy recently included in EIB lending priorities
- Biomass / Bioenergy projects are eligible under Environment
- For eligible projects:
 - 75 % of project costs not as usual 50 % at finest rates, provided viable project and solid guarantee
 - RDI also up to 75 % for sound projects

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Conclusions

- The CEE region provides considerable potential to bring energy intensity down to average EU levels
- 1st generation biofuels used as transport fuel are so far the best feasible technical process at industrial scale
- 2nd generation RDI crucial to widen feed stock range and to reduce cost
- EIB's Project Directorate is asked to avoid financing "White Elephants"!

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For more information...

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