Session 3- Financing climate technology and adapting climate technologies to local contexts

Findings

Astrid Motta, European Bank for Reconstruction and Development, (EBRD) provided an overview of the role that the Financen and Technology Transfer Centre for Climate Change, (FINTECC) plays in funding innovative projects at the national level that reduce GHG emissions as well as crowding in additional sources of investment. Lars Pehrson, Global Alliance for Banking on Values (GABV), explains how banks such as Merkur Cooperative Bank, in Denmark, and the more international alliance members fund innovative approaches to energy access by adopting a triple-bottom-line approach and taking a longer-term view allowing for greater support to emerging low-carbon technologies often advanced by SME. This ‘patient money’ approach has spurred the development of robust clean technology portfolios as well as valuable joint ventures that have produced, inter alia, open source methodologies for financial institutions to measure the carbon footprints of their investment portfolios. He also noted the important role that local ownership can play in spurring the development of clean technology solutions as investors have more than a financial stake in the outputs.

Rabhi Abdessalem (Institute for Global Environmental Strategies) highlighted the importance of mapping of technologies based on their size, source of financing, scale and phase of deployment in a particular location and the role this work can play in supporting additional investment in similar projects. Nagaraja Rao (Private Finance Advisory Network) noted that the questions of technology ownership are particularly important, as technologies that do not pay for themselves will generally fail to gain any traction in a market. Daniel Buckley Green Climate Fund (GCF) elaborated the role that the GCF can play in supporting innovation by looking to de-risk technology innovation investment towards mitigation and take on risk in adaptation oriented investments. The GCF views investments in their potential contribution to a paradigm shift or societal transition, and aims to partner with the CTCN to figure out the most appropriate pathways to support collaborative RD&D including through the creation of markets with appropriate support for necessary enabling frameworks.

Presentations

Investing in climate solutions – the Global Alliance for Banking on Values
  - Lars Pehrson, Merkur Cooperative Bank

Leveraging new investment in climate technology
  - Astrid Motta, European Bank for Reconstruction and Development
The Global Alliance for Banking on Values

...building a values-based banking movement
Part I - Introduction
GABV: An alliance of change makers

The GABV comprises 42 financial institutions and seven strategic partners operating in countries across Asia, Africa, Australia, Latin America, North America and Europe. Collectively we serve more than 24 million customers, hold up to $110 billion USD of combined assets under management, and we are supported by more than 42,000 co-workers.

The GABV is:

→ an independent network of banks, banking co-operatives and partner organisations
→ using finance to deliver sustainable development for unserved people, communities and the environment.
GABV Purpose

The GABV’s purpose is to REPRESENT and ADVANCE the VALUES-BASED BANKING MOVEMENT by:

→ RAISING PUBLIC AWARENESS of values-based banking and BUILDING the GABV PROFILE;
→ GROWING MEMBERSHIP, their REACH and IMPACT.

As an alliance, the GABV is founded on four structural pillars:

1. The MEMBER BANKS;
2. BOARD;
3. SECRETARIAT;
4. PARTNERS.
Part II – Investing in Climate Solutions
Why our members care about environment?

→ Triple bottom line approach is at the heart of the business model for our member banks

Sustainable banks integrate this approach by focusing simultaneously on **people, planet** and **prosperity**. Products and services are designed and developed to meet the needs of people and safeguard the environment.
Merkur Cooperative Bank (Denmark)

→ Energy supply is an area where the difference between long- and short-term thinking clearly emerges. Renewable energy will from a holistic perspective be the most viable, in addition to this comes our responsibility for the climate.

→ Strong growth in loans to renewable energy, primarily photovoltaic installations

→ Merkur has committed €31.6 million to renewable energy by the end of 2016

→ Example:
  → Partnerships with energy utilities: Merkur finances energy solutions such as natural gas installations and heat pumps in private homes. The loan repayment is paid through energy bills, which simplifies matters for customers. Currently 1,657 customers.
Merkur Cooperative Bank (Denmark)

→ Example:
  → Pure & Better Energy built three solar parks in Silkeborg, Denmark. The solar parks cover an area corresponding to 22 football fields and can supply power to 2,500 households.
→ Beneficial State Bank energy lending is comprised of companies that create clean energy from four renewable sources: sun, wind, water, and waste. Within this clean portfolio, they seek to continually discriminate among the sources and projects — supporting only small scale hydro, funding appropriate biogas digester facilities, and ensuring local community input, benefits, and ownership where possible.

→ As of year end 2016 they had committed $36.1 million to renewable energy projects in California, Washington and Idaho.
Switching to clean, renewable energy helps to ensure that we can meet energy demands of future generations without running out, reduces respiratory-illness-causing pollution at the source, and helps to reduce climate-change-causing carbon emissions.

These Projects Prevented Carbon Emissions Equivalent To

44,500 Passenger Cars
Off the Road for 1 Year

or

173,000 Acres of U.S. Forests
Storing Carbon for 1 Year

→ Sun, water, wind and biomass are available for energy generation. These resources are the simple alternative to fossil and nuclear energy carriers. GLS Bank has been investing in renewable energies since the mid-1980s. Nearly 30 percent of their loans go to wind power, photovoltaics, biomass and hydropower. In 1991, shortly after the financing of the first wind turbine, the first GLS wind turbine fund was launched.

→ GLS Bank invested €867,900,000 in renewable energy projects
GLS Bank (Germany)

A few examples of GLS Bank investments in renewable energy

→ **EWS Electricity** supplier generating the power from only renewable sources. EWS invests in new ecological technologies related to energy production and distribution.

→ **Wind energy for Berlin** - financing two wind turbines close to Berlin

→ **First crowdfunding platform initiated by a bank** – raising €300,000 in 14 hours to finance a Bavarian wind farm

More information: www.gls.de
Twelve Dutch financial institutions have agreed to work together to jointly develop open source methodologies to measure the carbon footprint of their investments and loans. By measuring and disclosing this information they expect to develop more effective strategies that help contribute to a low carbon society, in the hope that other institutions will follow suit.

PCAF was launched via a Dutch Carbon Pledge calling on the negotiators at the Paris Climate Summit in 2015 to take on board the role that investors and financial institutions can play in delivering an essential shift to a low carbon economy.

More information: www.triodos.nl
→ Banks avoid risks
  → The banks have to follow tight regulations that often prevent them from financing projects whose technologies are not tested enough

→ Legislation related to banking secrecy in some countries often prevents from speaking openly about new technologies and investments made in this field
If you wish to receive more information about the projects presented, or have any additional questions, please contact Jasmin Panjeta, GABV Marketing and Communications Coordinator, jasmin.panjeta@gabv.org or visit our website www.gabv.org.

Questions?

CONNECT

...www.gabv.org and social media

SUBSCRIBE

...eZine
Introducing FINTECC

Astrid Motta
May 22, 2017
Who we are & what we do

- Multilateral financing institution established in 1991 to support transition to market economies
- Owned by 65 countries, the EU and the EIB

- €30 billion capital base
- €41 billion portfolio
- €8.9 billion average annual business in the past 3 years

3 key operational principles
- Sound banking
- Transition impact
- Environmental sustainability
The EBRD’s Green Economy Transition initiative

- In 2006 the Bank adopted the SEI (complemented later by SRI and GET) as a key strategy:
  - **to mainstream** across the Bank’s operations, and
  - **to increase** the share of Bank business represented by measures which enhance the efficient use of energy and resources (water, materials) and contribute to the mitigation of, and adaptation to, climate change.

- The GET aims to further scale up green business volume, and to expand to new areas of activity, such as environmental protection and technology transfer.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Energy Initiative (SEI)</td>
<td>Sustainable Resources Initiative (SRI)</td>
<td>Green Economy Transition (GET)</td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency banking team</td>
<td>Energy efficiency</td>
<td>Water efficiency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable energy</td>
<td>Material efficiency</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adaptation to climate change</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental protection</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technology transfer</td>
<td></td>
</tr>
</tbody>
</table>
Green financing results in 2006 - 2016

FINANCED
1,200+
projects and credit lines
>900 directly financed projects with green components, and
>280 credit lines to locals financial institutions for on-lending to smaller projects

SIGNED
€22.2 billion
of green financing
For projects with a total value of €122 billion
In 2014-2016 green financing represented 36% of EBRD’s total business, up from only 15% in 2006.

REDUCED
84 million
tonnes of CO₂/year
Emission reductions equal to twice the annual energy emissions of Sweden
Plus annual water savings of 62 km³ since 2013 equal to 2/3 Prague’s’s water needs
FINTECC

It supports companies to implement **advanced climate technologies** that reduce greenhouse gas emissions and/or increase climate resilience by providing **grants** and **technical assistance** in the context of an EBRD investment.

**EXAMPLES OF ELIGIBLE TECHNOLOGIES**

- High-grade thermal insulation of buildings
- By-pass dust recycling
- Energy efficient ventilation and air conditioning systems
- Heat recovery systems
- LED lighting
- Energy management systems

**SECTORS & CLIENTS**

All **private sector, non multinational clients** are eligible.

The programme targets primarily the **Corporate sector**.

**COUNTRIES**

- Kazakhstan, Ukraine, Armenia, Azerbaijan, Belarus, Georgia, Kyrgyz Republic, Moldova, Mongolia, Tajikistan, Turkmenistan and Uzbekistan
- Egypt, Jordan, Morocco and Tunisia

FINTECC is funded by the GEF, the EBRD and the EU
### Addressing key barriers to climate technology deployment

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Solutions Provided by FINTECC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low market penetration</td>
<td>FINTECC provides information on climate technologies through its technical assistance</td>
</tr>
<tr>
<td>Knowledge gaps &amp; capacity</td>
<td>FINTECC offers project preparation support to develop bankable projects</td>
</tr>
<tr>
<td>Inadequate regulatory framework</td>
<td>FINTECC is working with governments to support frameworks that incentivise technology transfer</td>
</tr>
<tr>
<td>Availability of financial instruments</td>
<td>FINTECC offers grants in support of EBRD lending or investment in eligible climate technologies</td>
</tr>
<tr>
<td>Underdeveloped supply chains</td>
<td>FINTECC connects clients with suppliers of climate technologies</td>
</tr>
</tbody>
</table>
The EBRD has signed **29 transactions** which include a FINTECC grant component. The incentives are worth USD 7.3m, supporting USD 100m of green investments.
Belarus – Lower carbon footprint for plastic toys

CLIENT AND PROJECT

Polesie is a leading integrated producer of children’s plastic toys and games in Belarus. It is one of the major exporters of toys to Russia and is also actively expanding in the EU member-states including Germany, Italy and Spain. The EBRD supported energy efficiency upgrades at its main manufacturing site at Kobryn, and helped the company to strengthen its balance sheet.

An energy efficiency audit funded by the Central European Initiative (CEI) was performed.

INVESTMENT PLAN

<table>
<thead>
<tr>
<th></th>
<th>EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD finance</td>
<td>10 million</td>
</tr>
<tr>
<td>FINTECC grant</td>
<td>0.3 million</td>
</tr>
<tr>
<td><strong>TPV</strong></td>
<td><strong>10.3 million</strong></td>
</tr>
</tbody>
</table>

PHYSICAL SAVINGS

- Annual natural gas consumption savings of 24,100 MWh
- Annual electricity savings of around 3,000 MWh
- Overall emission reductions of 7,500 tCO₂/year.

PROJECT DETAILS

**Client:** PP Polesie LLC  
**Sector:** Manufacturing & Services, Plastics and Rubber Products  
**Country:** Belarus

**Technology:** combined cooling heat and power plant (CCHP plant) allowing to efficiently self-generate the heat, electricity and cooling power needed in the production plant

23 May, 2017
Georgia – Energy efficient building management systems in hospitals

CLIENT AND PROJECT
Aversi Pharma is one of the leading companies in the Georgian pharma and healthcare market. EBRD provided two loans with a total amount of USD 16.4m (CAPEX 12.3m and WC 4.1m) to finance the construction of a new clinic, the reconstruction of an infectious diseases hospital and working capital for the company’s pharmaceuticals business.

INVESTMENT PLAN

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD finance (CAPEX)</td>
<td>USD 12.3m</td>
</tr>
<tr>
<td>FINTECC grant</td>
<td>USD 0.238m</td>
</tr>
<tr>
<td>Other finance</td>
<td>USD 15m</td>
</tr>
<tr>
<td><strong>TPV</strong></td>
<td><strong>USD 27.6m</strong></td>
</tr>
</tbody>
</table>

PHYSICAL SAVINGS
The investment programme is expected to result in energy reduction of minimum 25% of the total energy consumption.

- CO$_{2e}$ reduced (ton): 600
- Primary energy saved (GJ): 9,000

PROJECT DETAILS

**Client:** Aversi Pharma LLC  
**Sector:** Health Care and Social Assistance  
**Country:** Georgia  

**Technology:**
- variable speed drives (VSDs) on fans & pumps  
- double glazing windows  
- high efficiency chillers and boilers  
- LED lighting and lighting control and a building management system (BMS)
Moldova – lightweight glass containers

CLIENT AND PROJECT
The Glass Container Company is the largest glass bottle producer in the Republic of Moldova. The EBRD is supporting the modernisation of GCC's existing factory, comprising an investment into a new melting furnace and two new production lines.

PROCESS & INVOLVEMENT
• Client approached the RO with a financing request for plant refurbishment
• EBRD: initial screening of EE and Recycling options. Consulting services were provided to identify the best investment programme for the client

BENEFITS
• Introduce new technologies to the client
• Put the client in touch with a range of suppliers of technologies

INVESTMENT PLAN
<table>
<thead>
<tr>
<th></th>
<th>EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD finance</td>
<td>5.3 million</td>
</tr>
<tr>
<td>FINTECC grant</td>
<td>0.3 million</td>
</tr>
<tr>
<td>Other finance</td>
<td>8.3 million</td>
</tr>
<tr>
<td><strong>TPV</strong></td>
<td><strong>13.9 million</strong></td>
</tr>
</tbody>
</table>

PROJECT DETAILS
Client: Glass Container Company
Sector: Glass Manufacturing
Country: Moldova

Technology:
Installation of Narrow Neck Press and Blow (NNBP) process in production line to produce lightweight glass containers, resulting in reduced energy and material consumption per unit produced.

Physical Savings:
Installation results in electricity savings of 1,350 MWh per year. This accounts for 2,950 tonnes of CO2 emissions savings.
Contacts

Astrid Motta
Principal
Energy Efficiency and Climate Change
Email: MottaA@ebrd.com

EBRD, One Exchange Square
London, EC2A 2JN
United Kingdom
www.ebrd.com

Find us on social media

http://finitecc.ebrd.com/index.html
THANK YOU

For more information:
http://fintecc.ebrd.com/about.html