Incorporating Sustainability into Trade Operations

IFC Global Trade Facilitating Program
Outline of the presentation

1. **Definition of Sustainability & IFC’s Support**
2. Eligible Trade Operations
3. Reporting Requirements
What means “Sustainability” for trade?

- **Addressing climate change, and ensuring environmental and social sustainability** is one of five key pillars of IFC overall strategy since 2004.

- In trade, **IFC is keen to support trade with materials and goods** supporting ideas of sustainability and helping to mitigate climate change.

- We see sustainability here as **trade with goods, materials and technologies, which will be end used primarily in Sustainable Energy areas, like:**
  
<table>
<thead>
<tr>
<th>Energy Efficiency</th>
<th>Renewable Energy</th>
<th>Cleaner Production</th>
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Sustainable Energy Technology Trade

Technology for more efficient use of limited resources

- Energy Efficiency (EE)
  - The same OUTPUT with less energy (heat, electricity) consumption
    - Technology for facility upgrades
    - Energy management systems
    - Efficient lighting, heating, cooling
    - Building insulation materials
    - Boiler retrofitting
    - Cogeneration
    - Efficient production lines
    - Etc.

- Cleaner Production (CP)
  - The same industrial OUTPUT with less environmental contamination and/or more efficient use of limited resources;
    - Technologies for energy savings;
    - Tech for efficient use of water
    - Waste management technologies
    - Technology for emission reduction;
    - Protection of natural habitats;
    - Etc.

Technology for generation of clean energy

- Renewable Energy (RE)
  - Any sub-project that generates energy from renewable sources (energy obtained from sources that are natural, rapidly replenished, and essentially inexhaustible)
    - Hydro power
    - Wind turbines
    - Biogas cogenerations
    - Solar panels
    - Biomass boilers
    - Etc.
### What are Energy Efficiency Technologies?

<table>
<thead>
<tr>
<th>Sector</th>
<th>Potential Recipients</th>
<th>Equipment to be traded</th>
</tr>
</thead>
</table>
| **Industrial** | Industrial companies, SMEs and MSMEs | • Energy efficient production lines  
• Waste heat recovery devices  
• Heating systems upgrades  
• Efficient boilers and heaters  
• Boiler fuel switching (coal-gas, coal-biomass)  
• Electricity peak-load control systems  
• Cogeneration units |
| **Commercial** | Housing complexes operators, Maintenance companies; Housing developers | • Heating and ventilation equipment  
• Control and metering systems  
• Electricity peak-load control systems  
• Efficient air-conditioners  
• Heat pumps, solar water heaters |
| **Municipal** | Municipalities, District heating companies, Street-lighting operators, Public buildings operators | • Boilers for district heating as well as for public/municipal buildings  
• Heat exchangers, pipes for infrastructure projects  
• Cogeneration units  
• EE transport vehicles (LPG buses) |
### What are Renewable Energy Technologies?

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Project</th>
<th>Equipment to be traded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small Hydropower</strong></td>
<td>Run of river generation projects or shaft power at industrial sites; small scale (maximum 10MW); stand-alone power system (on- or off-grid)</td>
<td>Turbines, power generators, Pipes, other technologies, Control systems, Power transformers, transmission</td>
</tr>
<tr>
<td><strong>Wind</strong></td>
<td>Wind farms; stand-alone power system (on- or off-grid); individual turbines for residential or small-scale use; Water-pumping</td>
<td>Wind turbines, control systems, Poles, construction bases, Power transformers, transmission</td>
</tr>
<tr>
<td><strong>Biomass &amp; biogas</strong></td>
<td>Organic matter used to generate electricity (e.g. wood and agricultural residues, plants, trees, municipal waste, landfil gas, animal waste); stand-alone power system (on- or off-grid)</td>
<td>Boilers, technology for Biomass processing, dryers, Cogeneration units, power generators, Landfill gas capturing technologies, Fomenters and auxiliary equip.</td>
</tr>
<tr>
<td><strong>Solar</strong></td>
<td>Photovoltaic power and solar thermal Buildings/residential systems; stand-alone power system (on- or off-grid); Water heaters, water purification</td>
<td>PV solar panels, support equip., Converters, Solar hot water heaters, tanks</td>
</tr>
</tbody>
</table>
# What are Cleaner Production Technologies?

<table>
<thead>
<tr>
<th>Sector</th>
<th>Opportunity</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-food</td>
<td>Reducing the consumption of resources (water and energy), increasing production yields and reducing the volume and organic load of effluent discharges.</td>
<td>Waste-water and habitat management for shrimp farms in Honduras saved costs of cleaning input water, replacing lost stock and managing pond erosion.</td>
</tr>
<tr>
<td>Construction</td>
<td>Reducing and recycling construction waste on site and reduced increased fuel efficiency of vehicles and equipment.</td>
<td>In South Africa, construction methods that use of renewable resources, operate efficiently, and require relatively little maintenance add to the profitability of Spier Estate.</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Reduction of water, energy and chemical use; better management of wastewater; creating a recycling loop; minimization of hazardous wastes</td>
<td>Process improvements and a $25,000 capital investment in an Indian pulp and paper mill had a payback period of less than 3 months.</td>
</tr>
<tr>
<td>Mining</td>
<td>Reduction of water and energy use; utilization of methane to generate electricity; smelting processes which generate heat to reduce energy use;</td>
<td>Mexico’s largest producer of mineral lime adopted a water recovery program that allowed it to recover 47.4% of groundwater for industrial facilities in desert areas.</td>
</tr>
<tr>
<td>Utilities</td>
<td>Fuel-switching to reduce the consumption of fossil fuels; cogeneration; waste minimization and recycling</td>
<td>The Philippines’ CEPALCO saves on operating costs by using solar photovoltaic technology in Mindanao rather than increasing its fossil fuel generation to meet growing demand.</td>
</tr>
</tbody>
</table>
How to establish the sustainability product

- Eligibility criteria (broad definition at the slide 5)
- Examples of eligible technologies (next section)

- Minimal additional burden for bank, only simple reporting template to inform about few details
- Information based on LC document
- Requirement/Option to get further inputs from dedicated IFC team (FMS)

- Be sure it is worth of your attention ... it will be rewarded!
Outline of the presentation

1. Definition of Sustainability & IFC’s Support
2. Eligible Trade Operations
3. Reporting Requirements
Detailed examples of eligible technologies 1

**Boilers**
- Fuel switching e.g. oil to gas, coal to biomass etc.
- New more efficient boilers (modular boilers allowing better load matching)
- Heat recovery devices
- Feed water preparation technology
- Pump control, ventilation control systems
- Combustion control systems
- Technology for conversion from steam to hot water
- Insulation materials (for boilers and pipes)
- Combined generation of heat and power (cogen, cogeneration)
- Steam or gas turbines to be installed to existing boilers
- ORC technology, etc.
Detailed examples of eligible technologies 2

**Buildings Technologies**
- Technology for decentralizing or centralizing local hot water supply
- Efficient lighting systems
- Ventilation systems (including heat recovery)
- Infra-red heating
- Automatic doors and shutters
- Energy management hardware/software
- Space heating systems, efficient heaters for workshops
- Building envelope insulation materials, efficient windows
- Technologies for heating systems retrofits, etc.
Detailed examples of eligible technologies 3

Motors and Drives
- High efficiency electric motors
- Variable speed drives

HVAC
- Customized HVAC controls and energy management systems
- High efficiency motors and variable speed drive motor controls
- Heat recovery technology

Compressed air
- New compressors, heat recovery
- Automatic controls of compressors and distribution networks
- Technology for cooling of compressors
Detailed examples of eligible technologies 4

**Lighting technology (external, internal)**
- Efficient lamps and ballasts
- Automatic lighting controls (i.e. timers or motion sensors, daylight sensors), new fixtures and reflectors
- Street lighting system components, control systems

**District Heating Systems (DH)**
- Boilers, heat exchangers
- Combined generation of heat and power (cogen, cogeneration)
- Process control and management systems
- Pre-insulated pipes and fittings

**Advanced transport technologies**
- Hybrids, LPG buses
Detailed examples of eligible technologies

**Technologies for Use of Renewable Energy Sources**

- Wind power turbines, poles, transformers & transmission lines
- Small hydro power plants equipment
- Photovoltaic systems incl. PV panels, convertors, holders
- Solar thermal energy technology
- Heat pumps & piping
- Biomass boilers
- Biogas cogeneration units, fermentors, technology for landfill gas capturing
- Geothermal energy utilization technology
What is not sustainable...?

- Technologies for fossil fuel based power and heat generation
  - Technologies using coal and other coal based fuels, oil, petroleum products
- Fossil fuels mining and processing technology
  - Coke production, refineries
- Traditional transport technologies
  - Regular cars, buses, trucks, airplanes
- Technologies for greenfield projects
  - Must be replacement of existing technology (not applicable for renewable energy)
- Technologies from IFC exclusion list (see annex)
Why to do it all?

- IFC is in position to incentivize increased share of trade of “sustainability friendly technology” on the total trade volume
- It can be part of “normal” trade guarantee line or new dedicated sustainable trade guarantee line
- **Guarantee price incentives are part of the package**
Outline of the presentation

1. Definition of Sustainability & IFC’s Support
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3. Reporting Requirements
Reporting requirements

- Reporting on transactions to be included into the portfolio
- Information primarily from LC documentation

- Client info (sector, activities)
- Project info (type of technology/goods traded)
- Expected energy benefits (energy savings/energy production)

- Simple spreadsheet

- IFC has dedicated team ready to confirm/discuss eligibility
## Reporting information on underlying goods

<table>
<thead>
<tr>
<th>Transaction ID</th>
<th>Transaction amount (Euro million)</th>
<th>Client Name</th>
<th>Type of Client (SME, Corporate, etc.)</th>
<th>Economy Sector of the Client</th>
<th>Key Activity of the Client</th>
<th>Equipment involved in the Transaction (The Project) (brief description) (use Annexure A for reference)</th>
<th>Non-process Related Technology (Energy Supply/Demand)</th>
<th>Industrial Process Related Technology (production lines)</th>
<th>Renewable Energy Projects Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.72</td>
<td>Client A</td>
<td>Corporate</td>
<td>Energy Generation</td>
<td>Generation of Power &amp; Sale to the Utility</td>
<td>12 generators of Gamesa AE-59 Model 800kW Wind Turbine</td>
<td>Average Energy Consumption with Original Equipment: 9.00 MWh/yr.</td>
<td>Expected Energy Savings from New Equipment 5.00%</td>
<td>5.00</td>
</tr>
<tr>
<td>2</td>
<td>5.00</td>
<td>Client B</td>
<td>SME</td>
<td>Dairy</td>
<td>Dairy Products Pasteurization line</td>
<td>Pasteurization line</td>
<td>Average Energy Consumption with Original Equipment: 50.00 MWh/yr.</td>
<td>Expected Energy Savings from New Equipment 10.00%</td>
<td>5.00</td>
</tr>
<tr>
<td>3</td>
<td>3.00</td>
<td>Client C</td>
<td>Corporate DH Company</td>
<td>Production of heat</td>
<td>Biomass boiler replacing the coal fired boiler</td>
<td>250.00 50,000 coal</td>
<td>Average Energy Consumption with Original Equipment: 50.00 MWh/yr.</td>
<td>Expected Energy Savings from New Equipment 9.00%</td>
<td>5.00</td>
</tr>
<tr>
<td>4</td>
<td>6.00</td>
<td>Client D</td>
<td>SME</td>
<td>Textile products</td>
<td>Heat exchanger for boiler house</td>
<td>120.00 20,000 coal</td>
<td>Average Energy Consumption with Original Equipment: 50.00 MWh/yr.</td>
<td>Expected Energy Savings from New Equipment 9.00%</td>
<td>5.00</td>
</tr>
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Annex: IFC Exclusion List

The IFC Exclusion List defines the types of projects that IFC does not finance. IFC does not finance the following projects:

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.
- Production or trade in alcoholic beverages (excluding beer and wine).
- Production or trade in tobacco.
- Gambling, casinos and equivalent enterprises.
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbounded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.
- For Trade finance projects, given the nature of the transactions, FIs will apply in addition to the IFC Exclusion List the production or activities involving harmful or exploitative forms of forced labor\(^2\)/harmful child labor.