BDL Energy Incentives

Sustainable Energy Access for Rural Areas, BIEF
September 22, 2016
National Energy Efficiency and Renewable Energy Action

- Energy Efficiency measures.
- Renewable Energy base, i.e. Solar and Wind energy.
BDL Energy Incentives

: A National Initiative to incentivize the Financial Sector to support Green Energy Technologies
Structure

Beneficiary → Engineering Consultant → Commercial Bank

Central Bank of Lebanon (BDL)

Official Technical Review by LCEC

Unofficial Technical Review by LCEC
Cost of EE & RE Investment

≤1%
BDL Energy Incentives

New Projects
- Up to 14 years maturity
- Up to 4 years grace period

Re-Modeling Existing Projects
- Up to 10 years maturity
- Up to 2 years grace period
Mechanism

EU Grant for EE
(November 11, 2010)

€12,200,000

Fully allocated with more than 100 beneficiaries
DREG - Decentralized Renewable Energy Power Generation Project

Private Sector RE Investments

Grant co-financing of $150,000 or 25% of project’s cost
Consumer Solar Water Heaters

- 0% Interest Rate
- Up to 5 Years Maturity
- $200 Grant from the MOEW for the First 7,500 Applicants

Number of granted SWH loans ≈ 20,000
Number of SWH loans that benefited from MOEW = 6,000
- Pricing was set at cost against carbon credit.
Projects

• More than 464 loans approved with a total of 322 million USD
• Around 42 projects in the pipeline with a total of 12 million USD
• 338 PV projects of a total installed capacity of 13.5 MWp
• Green building loans took the biggest part with a total budget of 223 million USD
Market

• NEEREA helped create more than 10,000 direct and indirect jobs in the sustainable energy sector in Lebanon

• The number of companies working in the field of solar water heaters rose from 25 in 2010 to more than 170 companies today.

• The number of companies working in the green energy and energy audits business rose from 4 in 2010 to more than 30 companies in 2015.

• The number of companies working in solar photovoltaic sector increased from 5 in 2010 to more than 70 companies today.
Investments Under $

- $100,000,000.00
- $150,000,000.00
- $200,000,000.00
- $250,000,000.00
- $300,000,000.00
- $350,000,000.00
- $400,000,000.00
- $450,000,000.00

National Energy Efficiency & Renewable Energy Action
Distribution of Investments Under NEEREA

**Loans Amount per Category**

- **RE**: Renewable Energy Projects (10%)
- **EE**: Energy Efficiency Projects (4%)
- **R3E**: Renewable Energy and Energy Efficiency Projects (19%)
- **GB**: Green Certified Buildings Projects (67%)
Indicators - Statistics

Distribution of Projects Under NEEREA

Number of Projects by Category

RE: Renewable Energy Projects
EE: Energy Efficiency Projects
R3E: Renewable Energy and Energy Efficiency Projects
GB: Green Certified Buildings Projects

RE 75%
EE 9%
R3E 11%
GB 5%
Distribution of Projects Under NEEREAA

Number of Projects by Technology

- PV: 338 (63%)
- SWH: 55 (10%)
- Biomass Boiler: 19 (4%)
- LED: 35 (7%)
- Building Envelope: 26 (5%)
- Other: 38 (7%)
- Green Certified Buildings: 22 (4%)

Indicators - Statistics
Indicators - Statistics

Loans Amount Distribution of Projects Per Sector

- Residential: $181,732,983.5, 57%
- Industrial: $16,387,794.25, 5%
- Commercial: $95,034,767.89, 30%
- Agricultural: $5,107,434.78, 2%
- Educational: $4,012,837.68, 1%
- Non-Profit: $17,640,389.48, 5%

Total: $95,034,767.89
Indicators - Statistics

Distribution of Projects Per Governorate

**NUMBER OF PROJECTS**
- Mount Lebanon: 42%
- South: 16%
- Bekaa: 15%
- North: 18%
- Nabatiyeh: 2%

**LOAN AMOUNT**
- Mount Lebanon: 60%
- South: 26%
- Bekaa: 4%
- Beirut: 5%
- North: 4%
- Nabatiyeh: 1%
<table>
<thead>
<tr>
<th>Governorate</th>
<th>Total Projects</th>
<th>Projects in Rural Areas</th>
<th>EE Projects in Rural areas</th>
<th>RE Projects in Rural areas</th>
<th>EE &amp; RE Projects in Rural Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Cost</td>
<td>No.</td>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>Beirut</td>
<td>29</td>
<td>$186,483,974</td>
<td>0</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>Mount Lebanon</td>
<td>186</td>
<td>$82,961,532</td>
<td>52</td>
<td>$8,402,320</td>
<td>3</td>
</tr>
<tr>
<td>Bekaa</td>
<td>64</td>
<td>$12,913,135</td>
<td>16</td>
<td>$3,475,490</td>
<td>0</td>
</tr>
<tr>
<td>North</td>
<td>81</td>
<td>$13,665,883</td>
<td>43</td>
<td>$1,099,215</td>
<td>0</td>
</tr>
<tr>
<td>South</td>
<td>72</td>
<td>$3,057,152</td>
<td>49</td>
<td>$2,008,074</td>
<td>0</td>
</tr>
<tr>
<td>Nabatiyeh</td>
<td>8</td>
<td>$14,573,734</td>
<td>5</td>
<td>$269,035</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>440</td>
<td>$313,655,410</td>
<td>165</td>
<td>$15,254,134</td>
<td>3</td>
</tr>
</tbody>
</table>
## BDL NEEREA Incentives

<table>
<thead>
<tr>
<th>Financing Scheme</th>
<th>Cost on Beneficiary</th>
<th>Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIB/AFD Energy</td>
<td>0% - 0.75%</td>
<td>150%</td>
</tr>
<tr>
<td>Energy Loans</td>
<td>3.75% - (50%*1Yr. Tbs)</td>
<td>150%</td>
</tr>
<tr>
<td>Kafalat Energy</td>
<td>3.5%</td>
<td>100%</td>
</tr>
<tr>
<td>Solar Panels Loans</td>
<td>0.75%</td>
<td>150%</td>
</tr>
<tr>
<td>Solar Energy – Rural Areas</td>
<td>0.75%</td>
<td>150%</td>
</tr>
<tr>
<td>Pollution Abatement - Industry</td>
<td>2 Yr. Tbs – 1% LIBOR 3mths. + 4.5%</td>
<td>60%</td>
</tr>
<tr>
<td>World Bank – Pollution Abatement</td>
<td>WB rate + BDL Comm + 3.5% Bank Spread - (100%*1Yr. Tbs)</td>
<td>100%</td>
</tr>
<tr>
<td>Non Subsidized – Environmental Loans</td>
<td>3.75% - (50%*1Yr. Tbs)</td>
<td>100%</td>
</tr>
<tr>
<td>Environmental Subsidized Loans</td>
<td>2 Yr. Tbs – 0.75%</td>
<td>60%</td>
</tr>
</tbody>
</table>
Thank You

Mazen A. Halawi
Head Of Subsidized Loans and Financing Programs
Banque Du Liban

mahalawi@bdl.gov.lb