Rural Development and Renewable energy

Beirut, 27 November 2012
Akkar

- Located in Northern Lebanon
- Covers an area of 788 Km²
- Characterized by large coastal plain, with high mountains to the East
- Has a population of 198,174
  80% live in the rural area
  41 % under the age of 15
Akkar

- Youth unemployment rate over 40% (95% for women)
- Emigration rate 25%
- 63% live below the poverty line
- 73.1% Live with less than 107$/month
- 65% are not covered by health insurance
- 47% have no running water
- 18 hrs of power cuts a day
Road design and Micro Sitting
Noise Emission levels

[dB]

- Red: >60
- Orange: >55
- Yellow: >45
Zone of Visual Impact
Advantages of Hawa Akkar to Region & Country

- Respect for environment, clean and renewable
- Local employment
- Tourism
- Income to municipalities
- Enhanced Infrastructure (Road / Power / Water)
- Cheap Additional Electricity
- Security of supply
- Helps achieve Lebanon’s target of 12% renewable by 2020
• "Request for Expression of Interest- Wind Power Rental Project: The Ministry of Energy and Water expresses its interest in receiving offers for the rental of energy produced from wind farms. Interested companies are requested to contact the Ministry of Energy and Water at energy@icecp.org.lb to get the application form needed to apply for the Expression of Interest. EOs should be submitted to EDL on the 12th Floor by Saturday 13 October 2012 at 12:00 noon.

<table>
<thead>
<tr>
<th>الميزانية (مليون $)</th>
<th>القدرة الإنتاجية (ميغاواط)</th>
<th>المدة الزمنية للتنفيذ من السنة إلى السنة</th>
<th>مصدر التمويل</th>
<th>الوصف</th>
</tr>
</thead>
<tbody>
<tr>
<td>195-115</td>
<td>100-60</td>
<td>1</td>
<td>القطاع الخاص</td>
<td>الطاقة الهوائية</td>
</tr>
</tbody>
</table>

الميزانية المستخدمة 1950 دولار/كيلوموقدة للطاقة الهوائية لإعداد الميزانية

البند "و" من ورقة سياسة قطاع الكهرباء الصادرة عن مهالي وزير الطاقة الاستاذ جبران باسيل والموافقة عليها من قبل مجلس الوزراء بتاريخ 21/6/2010
kWh cost in Lebanon

(1) Annahar newspaper, February 18, 2012, page 6, citing Advisor to the Minister of Energy and Water
(2) 300 g/kWh, the master plan for the EDL, prepared by EDF, page 12, open cycle, 700 USD/ton
(3) Price = 2.3 + 0.032 * P with P = 500 USD per ton of HFO with 1% sulfur, contract between EDL and the Syrian Ministry of Energy, page 8, Article (10). Exchange point; Anjar
(4) Annahar newspaper, February 18, 2012, page 6, citing adviser to the Minister of Energy and Water + 9% discount
(5) Policy Paper for the Electricity Sector, Issued in 21/6/2010, Page 3
(6) 288 g/kWh, the master plan for the EDL, prepared by EDF, page 12, HFO, 500 USD/ton
(7) Hawa Akkar
Thank you

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