Al -Fayhaa city halls

Expected project CAPEX : 17'000'000 €
Mandating Authority : Al Fayhaa Urban community

Summary
Transform the five city halls of Al-Fayhaa UCF into green buildings. The buildings will be equipped with Photovoltaic panels, thermal panels, LED lighting, and Energy Monitoring Devices and on site waste treatment, providing to the building electricity heat and cold. Besides the objective to reach a total energy autonomy a part of the energy produced will be used to feed 100% clean compressed AirPower vehicle.

Location and population
Tripoli, Mina, Beddaoui, Kalamoun, Lebanon
880'600 inh.

Social and environmental impact
Decreased fuel consumption of generators; reduction in CO2 emissions; reduced energy costs; job opportunities for youth
The project implementation will be supported by a campaign targeting mainly youth and universities through an ECO TRUCK traveling all over the region explaining the importance of renewable energy sources and its impact on the health and on the economy.

Main stakeholders
Urban Community of AL Fayhaa and EDSO Group
**STAGE 1: Concept Development, Site Identification**

**Target population**
NA

**Surfaces**
5 city halls

**Climate**
Mediterranean

**STAGE 2: Pre-Feasibility Studies**

**Pre-feasibility study:** Partially

**STAGE 3: Feasibility Studies**

**Feasibility study:** No

**STAGE 4: Permitting / Financing / Contracts**

**Land concession signed:**
NA

**Environmental impact study:**
in progress

**Identified sources of fundings**
Tbd

**STAGE 5: Engineering / Construction / Commercial Operation**

**Engineering, Procurement and Construction Contractor:**
SET Energy, Air power
SYNECOM with local partners,
WM international
Ahmed Bouzid Consultatn

**Operation and Maintenance Contractor:**
Under negotiation

**Comments**

<table>
<thead>
<tr>
<th>Solutions intégrées</th>
<th>CAPEX</th>
<th>Description</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Integration of all renewable energy sources in the city hall buildings</td>
<td></td>
<td>Integrated photovoltaic &amp; thermic module &amp; green wall</td>
<td>The construction process includes green irrigated modules</td>
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<td>clean energy production for service vehicle</td>
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<td>A part of the energy will be transform in compressed air</td>
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<td>green service vehicle</td>
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<td>Municipal vehicle will be retrofited in compressed air vehicle</td>
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<td>Energy storage</td>
<td></td>
<td>A part of the energy will be stored to create a mini local grid</td>
<td>The storage system produce also clean cold air</td>
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<td>LED lighting</td>
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