It was the start ......

First Solar Thermal Power Plant in Kuwait 1979-1986

محطة الصليبية 100 كيلو وات
Sulaibiah Plant 100 KWh
Shagaya Initiative: 2010-2030

Kuwait’s Gateway to Future Energy Security

February 2009 Shagaya Vision presented to H.H. The Amir Shaikh Sabah Al-Ahmad Al-Jaber Al-Sabah

It was a Vision ......

كانت رؤية

فبراير 2009 تقدم رؤية الشقايا

لحضرة صاحب السمو الشيخ صباح الأحمد الجابر الصباح

أمير البلاد

حفظة الله ورعاه
Then Became an Initiative......

October 2011 Shagaya Initiative was present

Then one of the most important Renewable Energy Projects in the region

June 2013 Official announcement of Shagaya Project
Shagaya Initiative
2,000MW designed installed capacity

1150MW CSP Plant
700MW PV Plant
150MW Wind Farm

Shagaya Initiative
Phase I: 70MW Introductory projects

50MW CSP Plant
10MW PV Plant
10MW Wind Farm
Shagaya Initiative projects dedicated for IPP
Technology Mix as per Development Master Plan

23 Solar Thermal Projects 50 MW each
14 Solar PV projects 50 MW each
140MW Wind Farm

Shagaya Initiative Fact Sheet

<table>
<thead>
<tr>
<th>Plant Capacity:</th>
<th>2,000 MW multi-technology renewable energy park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation Capability:</td>
<td>5,000 GWh annually</td>
</tr>
<tr>
<td>Fuel Saving:</td>
<td>12 Million barrel of equivalent oil</td>
</tr>
<tr>
<td>Environment Impact:</td>
<td>5 Million Tone of CO₂ from atmospheric emersion</td>
</tr>
<tr>
<td>Job Opportunity:</td>
<td>10,000 During Construction and 1,200 O&amp;M</td>
</tr>
<tr>
<td>Technologies:</td>
<td>- 1150 MW Solar Thermal Technology with 10h TES</td>
</tr>
<tr>
<td></td>
<td>- 750 MW Solar PV Technology</td>
</tr>
<tr>
<td></td>
<td>- 150MW Wind Power Technology</td>
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<tr>
<td>Infrastructure:</td>
<td>- 4 Substations</td>
</tr>
<tr>
<td></td>
<td>- Integration to the national Grid</td>
</tr>
<tr>
<td></td>
<td>- Emerging Technology testing/demonstration site</td>
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<tr>
<td></td>
<td>- Housing Compound</td>
</tr>
<tr>
<td></td>
<td>- Water Treatment Plant</td>
</tr>
</tbody>
</table>
### Phase I Project’s Current Statues

**Project name** | Phase I: Plant Capacity | Electricity Guarantee (MWh/a) | Project Cost (MKD) | Contract Signed On | Commercial Operation Day (COD) | O&M | LEC ($c/kWh)
--- | --- | --- | --- | --- | --- | --- | ---
Shagaya PV | 10 MW | 20,000 | 5.5 | 12 Feb. 2015 | August 2016 | 6 Years form COD | 9
Shagaya Wind | 10 MW | 35,160 | 7.2 | 26 Mar. 2015 | October 2016 | 6 Years form COD | 8
Shagaya CSP | 50 MW | 180,000 | 116.5 | 12 Sept. 2015 | Dec. 2017 | 6 Years form COD | 16

### Phase I Project’s Current Statues

**Project name** | Overhead line project | Substation project | Infrastructure and administration building project
--- | --- | --- | ---
Length (Km) | 43 | Big enough to evacuate power form Shagaya to the national electricity grid | 14 Km road
% progress | 90% | 95% | Administration building and Renewable energy R&D center
Commissioning | May 2016 | July 2016 | Bids evaluation stage
Progress | | | 24 months
Shagaya Initiative
Development Time Line: Idea to Reality

Development Phase


Official Start

Construction Phase

2015 - 2025 Private Sector Participation

Operation Phase

Complete Plant Design and RfP

Achieve National Target of 15%

Today

2025 - 2015