**Introduction:**

In order to reduce very high energy cost it is intended to find out ways and means to reduce the recurring energy cost and to explore use of modern technologies such as LED. Sukkur IBA intends proposals from reputed International and Local Companies to provide cost effective solution for replacement of currently installed Street Lights with Light Emitting Diode (LED) Technology.

### Quantities

<table>
<thead>
<tr>
<th>SNO</th>
<th>Description</th>
<th>Existing lights</th>
<th>Rate of Replaced LED lights (Each)</th>
<th>Taxes (Rs.)</th>
<th>Total Amount (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Supply and installation of LED street light fittings to replace existing incandescent/Sodium lamp fittings.</td>
<td>49 (150 W)</td>
<td>06 (250 W)</td>
<td></td>
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<tr>
<td>02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Total Amount (Rs.)</strong></td>
</tr>
</tbody>
</table>

### TECHNICAL REQUIREMENT OF LED STREET LIGHTING

- **Supply Source:** 180-240 volts. However, local conditions for voltage fluctuations should be considered and the system should be robust enough to withstand such variation in supply source.
- **Frequency:** 50 ± 1 Hz
- **Lamp Efficacy:** The luminaries should have a system efficacy of greater than 55 lm/W
- **Lamp Requirement:** High power LED with correlated color temperature of 4000K or 6500K ± 500K
- **Luminaire requirement technical requirement:** The viewing angle of the luminaries shall be 120 x 70 degrees optimized for street lighting application to achieve the uniformity. The LED luminaries should be suitable for road lighting application and should provide similar lumen output to that of the existing light.
- **Usage hours:** 12 hrs per day
- **Power consumption:** Preferable 80-95W @ 55 lm/W. However, wattage may vary depending upon the existing street light.
- **Power Factor:** Greater Than 0.9
- **Life Expectancy:** About 50,000 burning hours at a 35 0C ambient temperature with 70% lumen maintenance
- **Control Circuit:** Compatible with LED