Star Rating Program for Diesel Engine Driven Monoset pumps for Agricultural purposes (2 - 10 HP)

- Agriculture accounts for 13% share of total diesel consumption in the country in 2013-14. Approximately 3.3% of country’s total diesel consumption (68.4 MMT in 2013-14) has been used by Agricultural pumpsets for irrigation purposes.

- As per the market survey undertaken by PCRA
  - Two third of Indian farmers pumping water for irrigation use Diesel Pumps.
  - India produces 1.5 million pumps per year with an expected annual growth of 7%.
  - The existing population of pump sets in country is about 14.42 millions.
  - The survey also revealed that about 90% of pumps used in farms are of 21% efficiency only. This benchmarking initiative is expected to improve the fuel efficiency up to 28% of new monoset pumps being manufactured in next 5 years.

- PCRA identified Diesel Engine Driven Monoset pump for Agricultural purposes as a product having substantial potential for conservation of Diesel through through Standard & Labeling Program.

- The Star Rated product shall conform to BIS 11501-1986 with all amendments, wherever applicable.
• On 30th December 2013, Ministry of Power approved the Star Labeling program for Diesel Engine Driven Monoset pump for Agricultural purposes on voluntary basis. Scheme is operational post approval by Ministry of Power to PCRA’s benchmarking proposals in association with BEE.

• Decrease in specific fuel consumption through S&L Star Rating program would contribute towards Diesel saving for the customer as well as the nation. Approved Star rating plan is as under:

<table>
<thead>
<tr>
<th>Star Rating</th>
<th>Specific Fuel Consumption (SFC) in g/h/m/l/s of pump at duty point w.r.t. SFCmax** (given in IS 11501:latest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Star</td>
<td>&gt; 0.90 SFCmax to ≤ 1.00 SFCmax</td>
</tr>
<tr>
<td>2 Star</td>
<td>&gt; 0.80 SFCmax to ≤ 0.90 SFCmax</td>
</tr>
<tr>
<td>3 Star</td>
<td>&gt; 0.70 SFCmax to ≤ 0.80 SFCmax</td>
</tr>
<tr>
<td>4 Star</td>
<td>&gt; 0.60 SFCmax to ≤ 0.70 SFCmax</td>
</tr>
<tr>
<td>5 Star</td>
<td>≤ 0.60 SFCmax</td>
</tr>
</tbody>
</table>

**SFCmax(Maximum Specific fuel consumption) of Diesel Engine Driven Monoset pump at duty point is derived from chart given IS 11501:latest

• The Energy Efficiency Star Label shall be as cut to outlines as shown below:

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**Under test conditions when tested in accordance with relevant IS XXXX the actual energy consumption will depend on how the equipment is being used**
• Manufacturers of equipment / importers / persons-in-trade can participate in the scheme by registering with the Bureau of Energy Efficiency (BEE).

• The complete details of the scheme for Diesel Engine Driven Monoset pump for Agricultural purposes is available on BEE site www.beeindia.in