Solar Home System
Installed by
CMES
Area Covered:

1. Kayetpara, Sreepur, Gazipur
2. Razabari, Rajendrapur, Gazipur
3. Shokhipur, Tangail
4. Suruj, Tangail
5. Kuripara, Sirajgonj
6. Deuty, Rangpur
7. Ranirbandar, Dinajpur
8. Ghontaghor, Dinajpur
9. Puthia, Rajshahi
10. Elaipur, Nachol, Chapainowabgonj
11. Jaldhaka, Nilphamary
12. Malgara, Lalmonirhat
13. Fulbari, Kurigram
14. Khasherhat, Patuakhali
15. Amtoli, Borguna
16. Pathorghata, Borguna
17. Amua, Jhalkathi
18. Atpara, Netrokona
19. Purbodhola, Netrokona
The Systems are:

<table>
<thead>
<tr>
<th>System Power</th>
<th>Usable Load</th>
<th>Package Price</th>
<th>No. of Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 Wp</td>
<td>7 Nos of Tube light (Each 10W) &amp; 1 nos of Television (Black &amp; White)</td>
<td>39,800/-</td>
<td>912</td>
</tr>
<tr>
<td>75 Wp</td>
<td>6 Nos of Tube light (Each 10W) &amp; 1 nos of Television (Black &amp; White)</td>
<td>36,500/-</td>
<td>590</td>
</tr>
<tr>
<td>65 Wp</td>
<td>5 Nos of Tube light (Each 10W) &amp; 1 nos of Television (Black &amp; White)</td>
<td>32,500/-</td>
<td>1215</td>
</tr>
<tr>
<td>50 Wp</td>
<td>4 Nos of Tube light (Each 10W) &amp; 1 nos of Television (Black &amp; White)</td>
<td>26,500/-</td>
<td>1415</td>
</tr>
<tr>
<td>40 Wp</td>
<td>3 Nos of Tube light (Each 10W) &amp; 1 nos of Television (Black &amp; White)</td>
<td>21,000/-</td>
<td>2007</td>
</tr>
<tr>
<td>20 Wp</td>
<td>2 Nos of CFL light (Each 5W)</td>
<td>12,500/-</td>
<td>911</td>
</tr>
<tr>
<td>10 Wp</td>
<td>4 Nos of LED light (Each 2W)</td>
<td>9,000/-</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>7070</strong></td>
<td></td>
</tr>
</tbody>
</table>
# Plan for Next Three Years

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation of SHS</td>
<td>2000</td>
<td>3000</td>
<td>4000</td>
<td>9000</td>
</tr>
<tr>
<td>No. of new unit offices to be opened</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>No. of Customers to be trained</td>
<td>1500</td>
<td>2000</td>
<td>2500</td>
<td>5500</td>
</tr>
<tr>
<td>No. of Staffs to be Trained</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>180</td>
</tr>
</tbody>
</table>
Challenges in Implementation

• Customer does not want to pay their installment due in time.
• They misuse the battery part.
• Many customers are not literate enough, so they don’t want to understand the rules for maintaining the battery, charge controller, etc.
• The distance of customers’ houses is sometimes so far from the units.
• Lack of proper infrastructure in the remote village.
• They cannot follow the user guide.
• After being trained and with experience, staff leave the job.
Suggestions for Improvement

• Continuous positive monitoring.
• Proper utilization of all resources.
• Make a strong communication with customer.
• Customers training
• Staff training.
• Provide user friendly solar manual.
• Special training for the staff.
• Ensure to supply quality product.
Introducing small Solar powered water pump in Bangladesh

CMES
Overall Objective:
To Produce, disseminate and test solar drive systems for pumping water in developing countries.

Specific Objective:
The pilot project should prove the reliability of the solar driving system for small pumps in the field test and its adequacy for the needs of small farmers in terms of performance, water output, and connectivity to existing pumps as well as its affordability for small scale farmers.

Duration of the Project
Total : July 2011 to December 2012
Advantages of Solar Pump System

• Cost-effective for long term basis
• No need of any costly Fuel
• No need of physical labor/maintenance
• Light weight, Portable
• No sound, no heat
• Eco friendly, no pollution, no carbon di oxide
• More efficient Solar Pump system & the Motor
• Can be used where there is no Power grid electricity
• No Electric shock hazard
• Cutting edge Technology
**Location of the Project**

<table>
<thead>
<tr>
<th>No</th>
<th>Unit</th>
<th>District</th>
<th>Upzilla</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deuti</td>
<td>Rangpur</td>
<td>Pirgacha</td>
</tr>
<tr>
<td>2</td>
<td>Joldhaka</td>
<td>Nilfamari</td>
<td>Joldhaka</td>
</tr>
<tr>
<td>3</td>
<td>Ranirbondor</td>
<td>Dinajpur</td>
<td>Chirirbondor</td>
</tr>
<tr>
<td>4</td>
<td>Mithapukur</td>
<td>Rangpur</td>
<td>Mithapukur</td>
</tr>
</tbody>
</table>
How farmers can be benefited

• Help in development of irrigation process for cultivation vegetables by lifting water by Solar Drive System instead of hand pumps (physical labor)
• Development of the livelihood of small and terminal Farmers by increase Crop production by using modern solar pump irrigation system.
• Modification and Stabilization the modern technology by real Piloting research.
• To minimize the running cost by one time Investment.
• To save our environment.
Nos. of Pump system

- Deuty – Rangpur – 13 Vane Pumps
- Jaldhaka – Nilphamari – 13 Vane Pumps
- Ranirbandar – Dinajpur – 14 Vane Pumps
- Mithapukur – Rangpur – 15 Vane Pumps
- Mithapukur – Rangpur – 25 other pumps

Total 80 Solar Pump systems
Target group / Customer

• Small Farmers in rural areas not having access to grid electricity and growing only vegetables (where small scale irrigation needed).

• Our Target area is the northern Districts of Bangladesh where water table is within 21 feet (so that our Vane Pump can work).

• Select cluster type lands (for easy monitoring).
Recent activities in field

We are now in the process of daily pumping and delivery of irrigation water, monitoring of the systems and the irrigation operations.
That we will complete our Phase 1 very soon with satisfaction & success.
CMES will then go for the Phase 2 work.
সেটার ফর মাস এন্ড মিডল ইন্ডিয়া সালে (সিমীওয়ায়)
সেলার পাখি ফিন্ড টেস্টিং
জলচাকা ইউনিটি, শীলকান্তকৃষি
পাম্প নং - ২৩
THANK YOU