

**Ministry of New and Renewable Energy**  
**UNDP /GEF Global Solar Water Heating Project**

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**Brainstorming Meeting on Introduction of Star Labelling of  
Solar Water Heating Systems**

***Date & Time: 22.01.2010 at 11.30 A.M.***

***Venue : Conference Room (108), MNRE***

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**AGENDA FOR DISCUSSION**

1. The product range of SWH that will be taken up for the labeling. Definition of the products in the selected range (product will mean SWH system with clear definition of the system along with its components).
2. Standardization of product within the selected range that will be covered for labeling.
3. Standardized test procedures (MNRE draft standard for SWH system) along with standardized test conditions. (simulated test conditions to ensure similar results in all the test laboratories or selected laboratories)

**LIST OF PARTICIPANTS**

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| 1. MNRE.....                                 | : Dr. B. Bandyopadhyay, Adviser, and<br>Head, Solar Energy Centre |
|  | : Dr. Santram, Director, MNRE                                     |
| 2. BEE.....                                  | : Dr. Sandeep Garg, Energy Economist                              |
| 3. ICPCI.....                                | : Nayan Goswami, Director – Energy Solutions                      |
| 4. BIS                                       | : Mr. M.K. Paramanik, Scientist                                   |
| 5. EMVEE SOLAR                               |   |
| 6. NUETECH SOLAR                             |   |
| 7. BOROSIL                                   |   |
| 8. TATA BP SOLAR                             |   |
| 9. SUDARSHAN SAUR SHAKTI                     |   |
| 10. RASHMI INDUSTRIES                        |   |
| 11. SOLAR THERMAL FEDERATION OF INDIA (STFI) |   |

**MINUTES OF THE MEETING**

1. Dr. B. Bandyopadhyay chaired the meeting and welcomed all participants. There was no representation from the MNRE accredited test laboratories.

2. It was explained by Dr. Garg and Mr. Goswami that star labeling program is a market driven mechanism to pull the market to the next higher level. It is possible to introduce a star labeling program for SWH systems as has been done for many consumer products and BEE has the experience and expertise in the field.
3. Dr. B. Bandyopadhyay and some industry representatives were of the opinion that a star labeling program is not technically feasible for SWH systems. SWH systems tested at different locations in the prevailing conditions will deliver different results. On whether SWH systems can be tested under simulated conditions, it was stated by Dr. Bandyopadhyay that such testing has not been found practical due to high cost and is now not being practised anywhere in the world. However, provisions exist to normalize the test results to confirm repeatability and reproducibility of performance even when tested under different outdoor conditions (Round Robin Test).
4. It was felt that a minimum efficiency performance standard (MEPS) may be introduced for SWH systems in the first instance. The draft MNRE standard calls for a system efficiency of 40% and more. This could be further reviewed and an enforcement mechanism devised to ensure that all SWH systems sold in the market meet the MEPS level, including imports. The MEPS level can be reviewed periodically for upgradation to higher level. It was clarified by Dr. Garg that MEPS is a regulatory mechanism to push the market by merely having some efficiency standard. SWH systems need to go beyond this towards labeling in order to push technology upgradation, higher efficiency and thereby bring about greater competition. This will also bring about much needed consolidation of the supply chain.
5. It was felt that rating of products based on other parameters like after sales service, manufacturing facilities and distribution network, etc. should be considered. It was clarified that an objective of the project is to introduce a Trust Mark, similar to the Solar Key-mark of Europe which will enable rating of SWH products based on all the parameters mentioned above; star labeling is the first step towards developing such a Trust Mark.
6. No conclusion could be reached in the matter. It was, therefore, suggested that a Task Force may be constituted to review the entire issue about introduction of SWH efficiency standards, star labeling, MEPS (and establishment of an enforcement mechanism to roll out MEPS, if necessary), and the Trust Mark. However, this would need to be expedited.
7. The recommendations could then be taken to the Project Steering Committee of the GSWH Project for advice and direction.
8. The meeting ended with Vote of Thanks to the Chair.

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