

Solar Energy Research Initiative (SERI)

Department of Science & Technology under Solar Energy Research Initiative **aims to initiate Nationally Coordinated Programme on Solar Energy Research synergizing strengths of leading Indian Technological Institutes to develop novel materials, devices and systems applicable to Solar Energy.** Four rounds of interactions amongst different IITs and DST have resulted in how IITs could synergise their strengths in achieving this national objective. They thus have been able to identify specific areas in which each IIT would be able to contribute. In developing a vertically integrated solar energy system for the generation and delivery of a 1 MWe power, 8 hours a day based on photovoltaic as well as solar thermal route. In addition to this major theme, the Initiative would also cover poly-generation i.e. heating/cooling and desalination which may/ may not include power generation.

2. The Initiative also **attempts to demonstrate hybrid solar power systems integrated on various R&D pathways** and multiple technology alternatives for distributed energy use to **validate their viability to meet rural energy needs under public private-partnership mode.**

3. The Department organized “Scoping workshop for India-UK cooperation on Solar Energy Research” on 23rd April, 2009, which was attended by a number of experts including 10 experts from UK. The workshop focused on collaboration in the area of Solar Photovoltaic (PV). The **discussion resulted in signing of an agreement between DST and Engineering & Physical Sciences Research Council (EPSRC)** conveying their intent to cooperate towards fostering of genuine and mutually beneficial research. The areas of mutual interest identified for cooperation include the following:

- i) **Thin Film Performance and Stability**
- ii) **PV power systems and distribution**
- iii) **Cost effective isolated PV systems**
- iv) **Low cost materials for PV and**
- v) **Excitonic solar cells with focus on cost reduction.**