



Government of India
Ministry of New and Renewable Energy



**SIDE EVENT: NEW AND EMERGING TECHNOLOGIES
17 FEBRUARY, 1430 – 1600HRS | EVENT REPORT**

The Session on New & Emerging Technologies, focused on technologies which have yet not achieved widespread commercial acceptance due to policy, cost, performance risk, or lack of familiarity. A total of six speakers from Germany, Iceland, India, Malaysia, Switzerland, and U.S.A participated in this session. They represented industry, academia and Government and presented analyses of energy systems, plus knowledge of trends for existing technologies and prospects for commercialization of these new and emerging technologies. Among the technologies which were presented were development and promotion of second generation ethanol from biomass through use of enzymes developed by Novozymes, SunOyster technology which combines the best of three technologies and their features – Concentrated Solar Power (CSP), Concentrated Photovoltaics (CPV) and Photovoltaics (PV) so as to develop a highly optimal solution providing 75% energy efficiency (30% for electricity & 45% for heat), status and development of Geothermal energy in Iceland and risk mitigation and cost effectiveness for Indian conditions, use of heat pumps for geothermal heating and cooling and capital-efficient models of deploying renewable technologies through use of information technologies called as Cleanweb.

While the individual participants provided an in-depth perspective of their respective technologies, the panel discussion focused on the key policy choices that an emerging country like India needs to make is the stage at which a new / emerging technology need to be adopted by it. During the discussion issues raised were regarding cost, impact on the grid stability and ideal ratio of CSP/PV for the SunOyster System, development of enzymes by Novozymes for treating elephant grass and food waste to biogas so that the problem of disposal of food waste could be solved. On the whole key issues required to promote adoption of these new technologies were deliberated.