

## Regulation for Renewable Energy and Energy Efficiency

The course was facilitated by the main instructor Mr. Xavier Lemaire of REEEP and heard presentations by Ms. Marianne Osterkorn, Director of REEEP, Mr. Binu Parthan, Deputy Director of REEEP, Mr. Mark Lambrides of the REEEP Latin American and Caribbean Regional Secretariat, and a presenter in lieu of Mr. Alfred Ofosu-Ahenkorah of the Ghana Energy Foundation.

The course consisted of four modules. The first module gave an introduction to energy regulation, in particular with regard to the electricity sector. A trend towards independent regulators and the need for regulators to consider sustainable energy production and use was highlighted.

The second module underscored the increasing role and benefits of more distributed electricity generation in less centralized systems based on co-generation, achieving lower emissions, avoiding transmission and reducing grid losses. Electricity networks in this view become active networks built on interaction between consumer and utility and consumers who produce energy, as a feed-in to the grid, in micro-grids or in stand-alone systems. The course emphasized the role of a regulator as creating a level playing field through the eventual removal of subsidies for generalized generation, equal access to the grid, reflecting the prices for transmission and distribution and establishing connection rules for the use of the network.

In the third module, support mechanisms for sustainable energy were explored. First, the market for wind power in India was briefly discussed, which is seeing significant expansion over the last decade due to the establishment of clear policies guided by a dedicated ministry and renewable energy agency, the Electricity Act of 2003 and a national wind mapping programme. Second, the need for light-handed regulation for village mini-grids in developing countries was underscored which should not be burdened with stringent standards and reporting requirements. Third, an alternative approach to off-grid regulation for photovoltaic solar energy in developing countries was presented including small local utilities who collect fees for providing solar systems and maintaining them. Fourth, the emerging market for green certificates in Europe was outlined as an information tool and trading scheme that can promote best practice in the production of renewable energy.

The fourth module focused on energy efficiency. The introduction of energy efficiency standards and labels for appliances in Ghana was presented focusing on air conditioning and compact fluorescent lights.