



Renewable Energy

All nations face the challenge of developing and deploying renewable energy technologies. There is an international need driven by climate change and international agreements. There are national needs driven by factors including lack of conventional energy resources and depletion of existing resources, cost and balance of payments issues, and increasing levels of pollution.

On the other hand, the opportunities are far greater than they were even a decade ago. There are more options, technology has become more sophisticated, renewable systems have become less expensive and more economical to install; they are more efficient to operate and they are able to fulfil a larger percentage of national requirements.

Intelligently planned renewable energy policy has the ability to create national energy sufficiency and long-term energy security for many nations.

Methodology

CIID will follow the methodology described in the accompanying document "Infrastructure development support programmes". Following an interactive discussion with the government ministries, departments or agencies responsible for renewable energy, CIID's renewable energy sector specialists will develop a comprehensive programme to guide the sector towards international standards of best practice, including an understanding of the spectrum of available renewable technologies; the advantages and disadvantages of grid-dependent and grid-independent systems; and the merits of macro, medium and micro installations.

The optimum balance of renewable technologies varies from country to country, even between neighbouring countries. This balance depends on factors including: climate (sun, rainfall and wind), geography (tides, rivers and lakes and availability of land), the quality and extent of the grid, demographics and the spread of the national economy between industry, agriculture, tourism and service industries. CIID will provide a briefing on the range of available technologies, including not only the mainstream solar PV, hydro and wind energy technologies, but also other options such as solar thermal, solar ovens, hydro-mechanical power and wave energy.

The aim will be to develop and implement an advanced renewable energy programme to achieve or exceed national renewable energy targets.

Capacity building for improving implementation capability

In consultation with the senior management of the relevant government ministry, department or agency, CIID will develop and deliver a series of workshops and longer training programmes to provide practical knowledge of current technological developments, engineering practice and technology management. This process will generally commence with one or two short interactive workshops, which will serve two main purposes:

- Introduce managers and engineers to international standards of best practice
- Inform CIID about the main priorities and challenges facing the sector

Implementation

CIID will then create a comprehensive programme, in consultation with government officials and local industry, to implement a sustainable progressive programme for self-sufficiency in renewable energy. This programme will put in place the necessary levels of expertise at all levels and will include assistance in structuring the most effective structures for project funding and project management.