

No.10/19/2007-P&C  
Government of India  
Ministry of New and Renewable Energy  
(Human Resources Development Division)  
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Block No.14, CGO Complex,  
Lodhi Road, New Delhi-110003  
Dated June 2, 2009

To  
The Pay and Accounts Officer,  
Ministry of New and Renewable Energy,  
New Delhi-110003.

Subject: Human Resources Development Programme in New and Renewable Energy for the year 2009-10-Sanction regarding.

Sir,

I am directed to convey sanction of the President of India for implementation of the Human Resources Development programme for the year 2009-10 at a total outlay of Rs.2.0 crore (Rupees two crore). The details of the programme component, implementation methodology, financial assistance, release of fund and monitoring mechanism have been given in the Appendix.

2.0 The overall objective of the programme would be to meet human resource requirement for new and renewable energy programme by undertaking various activities as explained in the Appendix to this sanction order.

3.0 Each proposal for seeking financial support will be examined in consultation with the Integrated Finance Division of the Ministry.

4.0 The expenditure to the scheme will be met from the Budget provision given below.

<u>Head of Account</u>	<u>Description</u>	<u>Allocated Amount</u>
2810	The expenditure is debitable to Demand No. 67, Major Head '2810' New & Renewable Energy, 00-105-Supporting Programmes, 05 -Human Resource Development & Training, 31-Grants-in Aid for the year 2009-10 (Plan).	Rs.2.0 crore

5.0 This issues in exercise of delegated powers of this Ministry and with the concurrence of IFD vide Dy No IFD/265/09 dated May 29, 2009

Yours faithfully,

(B.K.Trikkha)

Under Secretary to the Government of India

Copy for information and necessary action to:

1. All Group Heads, MNRE
2. PS to Minister (NRE)/Sr. PPS to Secretary (MNRE)
3. All State Nodal Agencies
4. Director (HRD)
5. IFD
6. Sanction folder.

(B.K.Trikkha)

Under Secretary to the Government of India

## **Human Resources Development Programme in New and Renewable Energy for the year 2009-10.**

### **Major provisions**

#### **Background**

Rapid advancement of technology is making every sphere of the renewable energy more and more sophisticated, requiring especially skilled engineers, supervisors, artisans, managers etc. to manage the programme at various levels. The technical knowledge, acquired from universities, engineering colleges, polytechnics, industrial training institutes and other institutions needs to be supplemented with applied scientific, engineering and managerial skills. These skills are to be regularly updated to cope with the ever progressing and rapidly advancing technologies being introduced in the renewable energy sector where the speed of obsolescence often overtakes the pace of acquisition of a particular skill. In addition, renewable power has an interface with the grid utilities that have numerous technical issues to grapple with. Trained manpower is required at every stage of the above-mentioned tasks.

MNRE has been implementing the scheme for human resource development in the renewable energy that provides for financial support for organizing trainings, deputation of professionals in trainings and study tours within the country and abroad, award of fellowships etc. Training needs are broadly categorized under the following categories:

- i) Specific and highly specialized areas;
- ii) Related to technological, scientific and management areas and training programmes formulated to meet these needs;
- iii) Under general management area;
- iv) Related to State Nodal Agencies professionals under various renewable energy application oriented programmes;
- v) Financial sector on the issues relating to project financing of renewable energy projects.
- vi) Small and medium scale manufacturing, industrial undertakings, services and business enterprises (SME) on development of convenient technology packages for different SME groups, technological solution awareness, best practices for renewable energy use, strengthening outreach of renewable energy technologies to consumers etc.

#### **2.0 Objectives**

The general objectives of the Ministry's human resource development programme are as under:

- i) To update the professionals working in the field of renewable energy on technological, economical and social issues and management of the science and technology and public administration through infusion of scientific temper and accountability;
- ii) To infuse commitment towards building of partnership and participatory decision-making;

- iii) To be responsive to the challenge of changing framework needs in policy, institutional, legal, trade, IPR, knowledge management, organizational and technological development;
- iv) To strive for improving performance, efficiency and cost of renewables;
- v) To provide adequate knowledge of the technical issues that are essential to help executives in Government, banking and financial sector with non-technical background about renewables;
- vi) To bring about attitudinal changes among the renewable energy professionals and also those working in the mainstream power sector to meet the changing energy –mix in favor of renewables;
- vii) To act as a facilitator for improving the skill sets of professionals and executives in the renewable energy industry and also in research and development institutions.

### 3.0 Strategy

The strategies would be as under:

- i) The training approach would include:
  - a) Training of professionals working in the Ministry and its attached and autonomous bodies, etc at specialized institutions in India and abroad;
  - b) Training of professionals working with State Nodal Agencies/Governments/utilities on different aspects of technology, its development and project management;
  - c) Training of manpower on social, economic, trade, legal, trade, IPR, administration, managerial and environmental aspects;
  - d) Training of the manpower working on various aspect of renewable energy with research & development institutions, NGOs, community based organizations, banking and financial institutions etc;
  - e) Organization of training-cum-study tours;
- ii) Development of training modules including pedagogy through expert(s)/expert institution(s);
- iii) Addressing long-term HRD needs: In order to gravitate students and professional in the field of renewable energy and also to prepare manpower through universities/technical institutions ready to work on various aspect of renewable energy, the following are proposed:
  - a) Enlarge coverage of renewable energy fellowship scheme by covering more universities/institutions and also R&D institutions, to conduct research on all aspects of renewable energy. This way the R&D programmes will not be limited only to a few technology institutions rather it will have larger spread across the country;
  - b) In order to address the curriculum needs of technical institutions to cover renewable energy, there is urgent need to develop model curricula for inclusion in the ITIs, diploma and degree courses. The curricula and the course material so developed would be circulated to all such institutions through State Technical Education Boards and AICTE.

### 4.0 Monitoring

Concurrent monitoring & feedback of training events and programmes will be a component in-built of the sanctioned HRD activity to progressively improve upon the deliverables.

## 5.0 Institutional Arrangements

Apart from the Ministry's specialized technical institutions, reputed training institutes such as Indian Institutes of Management; Indian Institute of Public Administration, New Delhi; National Institute of Rural Development, Hyderabad; Administrative Staff College of India, Hyderabad; National Institute of Advanced Studies, Bangalore; IISc, Bangalore; Indian Institutes of Technology; National Power Training Institute, Faridabad; Banking Staff Training Institute, Pune; Public Sector Undertakings/organizations; Autonomous Organizations under Central/ State Governments; NGOs such as Social Work Research Institute, Tilonia, The Energy & Research Institute, New Delhi, World Institute for Sustainable Energy, Pune, Development Alternative, New Delhi etc and premier institutes working on different aspects of renewable energy abroad, will be associated for imparting training to the professionals and above conducting other HRD activities.

## 6.0 Criteria/ Parameter for Identification of Institutions/ organizations for conducting Training

In addition to the institutions/ organizations as mentioned in paragraph 5.0 above, additional institutions/ organizations could also be pooled up for imparting training on various aspects of renewable energy. Selection of such institutions would be based on: (a) Background, Experience and Core Strength; (b) Track Record; (c) Availability of professionals; and (d) Adequacy of infrastructure. For the purpose, a Standing Committee headed by Joint Secretary and comprising of representatives from respective technology areas, Finance will be constituted. Director (HRD) will act as convener to this Committee.

## 7.0 Funding Pattern

The financial assistance for organizing trainings would be upto 100%. However, the following normative norms would be followed:

No.	Activity	Maximum support for one Training Programme
1.	State Level Training Programmes	Rs.10.0 lakh
2.	National Level Training Programmes	Rs.20.0 lakh
3.	International Level Training Programmes	Rs.30.0 lakh

Each proposal for seeking financial support for trainings would be examined for the appropriateness of the assistance and in exceptional cases, higher quantum of financial assistance would also be provided on merits with the approval of competent authority.

The financial assistance for developing training modules etc would also be provided upto 100% with a maximum of Rs.5.0 lakh. However, in exceptional cases, higher quantum of financial assistance would also be provided on merits with the approval of competent authority.

The National Renewable Energy Fellowships would be provided on the UGC/DST norms.