

## Chapter - 1

# Introduction

### 1.1 Functions and objectives of IREDA

Renewable energy is an important component of India's energy portfolio. The importance of renewable energy sources in transition to a sustainable energy base was recognised by the Government of India which established the Department of Non-Conventional Energy Sources in 1982. This was upgraded to a Ministry of Non-Conventional Energy Sources (MNES) in 1992 and subsequently renamed as Ministry of New and Renewable Energy (MNRE). MNRE's objectives *inter alia* include deployment of grid-interactive renewable power generation projects to augment contribution of renewables in total electricity mix; promotion of renewable energy initiatives for meeting energy needs in rural areas and to supplement energy needs in urban areas and in industry and commercial establishments.

Indian Renewable Energy Development Agency Limited (IREDA) was established in March 1987 under the Companies Act, 1956 for the purpose of extending term-loans to renewable energy and energy efficiency projects. It operates under the administrative control of the MNRE. IREDA was notified as a Public Financial Institution by the Government of India in 1995. In 1998, IREDA was registered as a Non-Banking Financial Company<sup>1</sup> (NBFC) with the Reserve Bank of India. IREDA is a fully Government owned company with authorised share capital of ₹ 1,000 crore and paid up capital of ₹ 699.60 crore as on 31 March 2013.

IREDA's mission is to be "a pioneering, participant friendly and competitive institution for financing and promoting self-sustaining investment in energy generation from renewable sources, energy efficiency and environmental technologies for sustainable development." Its objectives are:

- To give financial support to specific projects and schemes for generating electricity and/or energy through new and renewable sources and conserving energy through energy efficiency.

<sup>1</sup> A Non-Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956, engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business, but does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property.

- To increase IREDA's share in the renewable energy sector by way of innovative financing.
- To strive to be a competitive institution through customer satisfaction.
- To maintain its position as a leading organisation to provide efficient and effective financing in renewable energy and energy efficiency/conservation projects.
- Improvement in the efficiency of services provided to customers through continual improvement of systems, processes and resources.

IREDA also implements certain programmes on behalf of MNRE, like Central financial assistance in the form of subsidy.

## 1.2 Organisational set up

The functions of IREDA are overseen by a Board of Directors (BOD) headed by a Chairman & Managing Director (CMD) supported by Director (Technical) and Director (Finance). Besides, two part-time Government Directors and one part-time non-official (Independent) Director are also part of the BOD.

IREDA's operations are centralised at its Head Office located at New Delhi, from where most of the activities including project application processing, project appraisal, sanction, disbursement, monitoring, recovery, etc., are carried out. Besides, it has field offices at Hyderabad, Chennai, Kolkata and Ahmedabad which mainly play the role of liaison offices.

## 1.3 Government of India's renewable energy programme

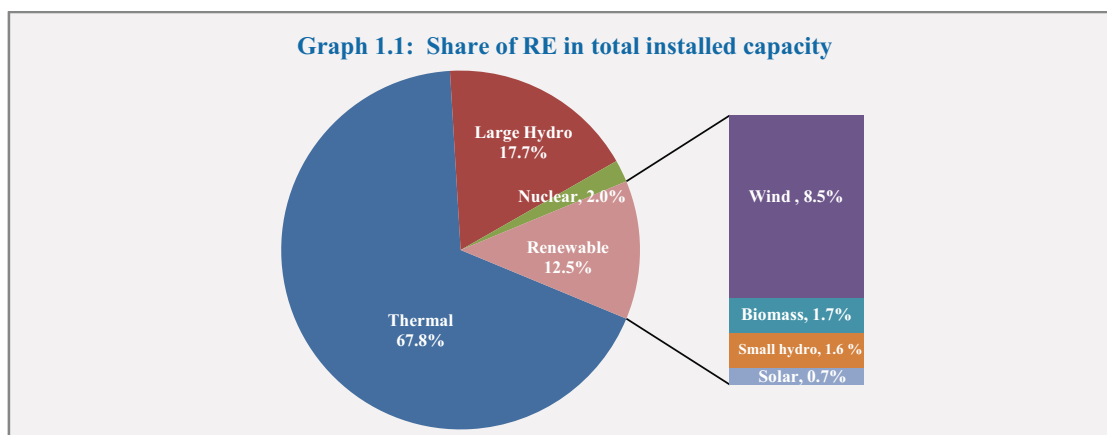
The Government of India has been supporting renewable energy development through a mix of fiscal and financial incentives. These include capital/interest subsidy, accelerated depreciation, concessional excise and customs duties, and generation-based incentives or feed-in-tariff. The growth of renewable energy in India has largely been led by the private sector. IREDA, other public sector agencies and private financial institutions are also actively funding renewable energy projects.

As on 31 March 2013, the gross installed power generation capacity of the country stood at 223 Giga Watt (GW<sup>2</sup>) including installed renewable energy (RE) capacity of 28 GW which constituted 12.50 *per cent* of the total installed capacity. This comprised of 19.05 GW from wind, 3.70 GW bio-mass, 3.63 GW of small hydro and 1.62 GW of solar power.

---

<sup>2</sup> One Gigawatt equals 1000 Megawatt ( MW).

The relative share of thermal, hydro, renewable and nuclear energy in the total installed capacity at the end of March 2013 is depicted through the following Graph 1.1:



Source: IREDA Annual Report 2012-13

## 1.4 Financial position and working results of IREDA

A summary of the key financial indicators relating to the functioning of IREDA during 2008-09 to 2012-13 is given in Table 1.1 below:

**Table 1.1: Summary of key financial parameters of IREDA**

Particulars	₹ in crore				
	2008-09	2009-10	2010-11	2011-12	2012-13
Loans and advances	2545.56	3022.36	3643.91	5241.09	6830.43
Capital employed <sup>3</sup>	3148.90	3715.37	3739.31	5449.82	6634.23
Net worth <sup>4</sup>	891.12	959.33	1264.12	1457.99	1688.35
Gross income	275.11	345.25	402.46	534.82	729.56
Net Profit	66.00	85.22	160.49	173.13	202.65
Percentage of net profit to capital employed	2.10	2.29	4.29	3.18	3.05
Average cost of borrowings (percentage)	8.99	8.56	8.05	8.32	8.43

Source: Annual Reports of IREDA

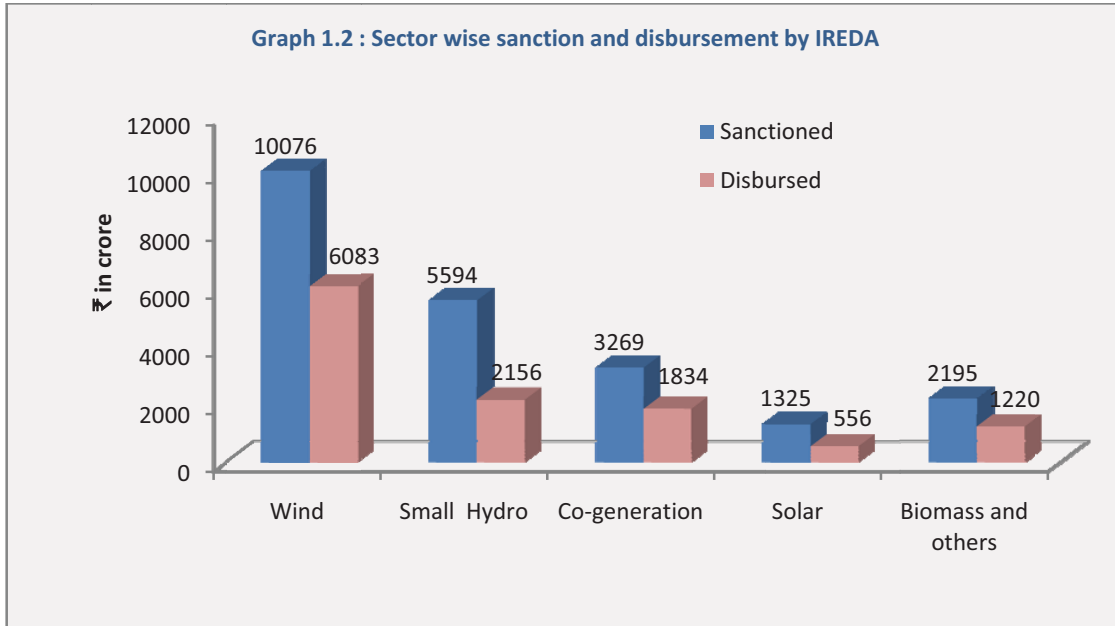
Details of financial position of resources, operations and working results are in **Annexure II**.

<sup>3</sup> Capital employed: Gross block less accumulated depreciation plus working capital.

<sup>4</sup> Net worth: paid-up capital plus reserves less accumulated losses and deferred revenue expenditure to the extent not written off.

## 1.5 Funding of RE projects by IREDA

Since its inception in 1987, IREDA has sanctioned loans of ₹ 22,459.23 crore for 2064 projects and disbursed a total of ₹ 11,848.79 crore by 31 March 2013. IREDA's loan portfolio is largely concentrated in the wind, small hydro and cogeneration<sup>5</sup> sectors. The sector-wise break-up of cumulative loan amounts sanctioned and disbursed is shown in Graph 1.2 below:



Source: Annual Reports of IREDA

During the period covered by the performance audit i.e. from 2008-09 to 2012-13, 219 projects amounting to ₹ 13,593.58 crore were sanctioned and ₹ 6,865.68 crore was disbursed as shown in Table 1.2. The wind power sector accounted for about half (₹ 6,834.30 crore: 50.28 per cent) of total amount sanctioned during this period, followed by small hydro power sector (₹ 3,498.75 crore: 25.74 per cent), co-generation projects (₹ 1,949.89 crore: 14.30 per cent) and solar sector (₹ 739.07 crore: 5.43 per cent) and rest in other sectors<sup>6</sup> (₹ 571.57 crore: 4.25 per cent).

<sup>5</sup> Co-generation is the simultaneous generation of both electricity and heat from the same fuel, for useful purposes.

<sup>6</sup> Energy efficiency and conservation, Waste to energy, Biomethanation from Industrial Effluents and miscellaneous.

**Table 1.2: IREDA's sanctions and disbursements during 2008-09 to 2012-13**

₹ in crore

Year	No. of projects sanctioned	Amount sanctioned	Amount disbursed	Capacity of sanctioned projects (in MW)	Capacity of commissioned projects (in MW)
2008-09	47	1489.93	770.95	403.75	177.81
2009-10	29	1823.91	890.03	760.75	292.55
2010-11	34	3126.42	1224.17	804.63	270.10
2011-12	64	3405.96	1855.03	1416.90	904.00
2012-13	45	3747.36	2125.50	1249.80	848.00
<b>Total</b>	<b>219</b>	<b>13593.58</b>	<b>6865.68</b>	<b>4635.83</b>	<b>2492.46</b>

Source: Annual Reports of IREDA

## 1.6 Why did Audit select this subject?

The role of new and renewable energy has been assuming increasing significance with the growing concern for India's energy security. India's substantial and sustained economic growth is placing enormous demand on its energy resources. The demand and supply imbalance in energy sources has been pervasive requiring efforts by the Government of India (GOI) to augment energy supplies. The GOI has been taking initiatives to develop renewable energy programmes and schemes and deploy renewable energy systems for supplementing the energy requirements of the country.

The Planning Commission stated in the Twelfth Plan document that the annual average growth rate of the total energy requirement is expected to accelerate from 5.10 *per cent* per year in the Eleventh Plan to 5.70 *per cent* per year in the Twelfth Plan and the supply from renewables is expected to increase rapidly from 24,503 MW by the end of the Eleventh Plan to 54,503 MW by the end of the Twelfth Plan, and underlined the need for investments in renewable energy. It is against this backdrop that Audit decided to review the functioning of IREDA, given its unique status as the only Central Public Sector institution which provides institutional finance exclusively in the field of renewables and energy efficiency.

## 1.7 Audit objectives

The performance audit was undertaken to assess whether:

- IREDA was effective in discharging its role as a leading financial institution for RE projects;
- an efficient mechanism existed for expeditious processing of loan requests;

- an effective mechanism existed for review and monitoring of projects with a view to recover its loans;
- projects sanctioned were commissioned/implemented on time; and
- subsidy released had resulted in achievement of the envisaged objectives of GOI.

## 1.8 Sources of Audit criteria

Audit criteria were derived from the following:

- Memorandum of Understanding (MoU) with MNRE and Memorandum of Association (MoA) of IREDA;
- Renewable Energy and Energy Efficiency Financing Guidelines, Guidelines on One Time Settlement and Reschedulement, Prudential norms relating to Non-Performing Assets and Fair Practices Code of IREDA;
- Budget, Annual Reports and Corporate Plans of IREDA;
- Agenda/Minutes of the meetings of the BOD/Settlement Advisory Committee;
- Minutes of the Task Force of Department of Public Enterprises;
- Result Framework Document, Outcome Budget and instructions of MNRE; and
- Annual Reports of other power sector financing companies like Power Finance Corporation and Rural Electrification Corporation.

## 1.9 Scope of audit

The performance audit covered a period of five years from 2008-09 to 2012-13. In addition to examination of the planning and monitoring aspects, Audit also selected sample cases listed in **Annexure III** for scrutiny, as detailed in the following Table 1.3:

**Table 1.3: Sample selection**

							<i>₹ in crore</i>
Type of cases	Total no. of cases since inception/ from 2008-09 to 2012-13 (Population)	Total amount involved	No. of cases selected for audit (Sample Size)	Total amount involved in Selected Sample	Percentage of selected cases	Percentage of amount involved in selected sample	Criteria for selection
Sanctioned cases	229	13431.13	25	4798.38	10.92	35.73	High value
Dropped cases	298	16199.36	43	3156.68	14.43	19.49	High value
Disbursement cases	144	6867.45	17	1865.80	11.81	27.17	High value

Type of cases	Total no. of cases since inception/ from 2008-09 to 2012-13 (Population)	Total amount involved	No. of cases selected for audit (Sample Size)	Total amount involved in Selected Sample	Percentage of selected cases	Percentage of amount involved in selected sample	Criteria for selection
Non-Performing Assets cases	67	254.80	11	138.71	16.42	54.44	High value cases remaining unsettled for 2 years or more
One Time Settlement (OTS) cases	29	446.70	17	378.42	58.62	84.72	Maximum sacrifice of dues
Abandoned projects	38	284.61	5	45.32	13.16	15.92	Non-settlement of dues
Subsidy cases	123	148.99	12	18.10	9.76	12.15	Non- recovery

*Sample was selected from PIDMOS database.*

## 1.10 Audit methodology

Based on a preliminary study and background information, Audit prepared the guidelines for the performance audit. An audit plan outlining the scope and objectives of the audit assignment, the areas of concern and the timeframes for various activities was prepared. An Entry Conference with MNRE which was also attended by officials from IREDA was held on 2 November 2012 where the audit objectives, scope of audit, audit criteria and audit methodology was discussed. Audit called for various records/information from IREDA, interviewed key personnel and also relied on the information captured in IREDA's Project Information and Documentation Monitoring System (PIDMOS) database during audit.

After completion of audit, an Exit Conference was held on 28 April 2014 with the CMD and other IREDA officials, wherein the audit findings and recommendations were discussed. Responses received from IREDA were suitably considered and incorporated in the Report.

The draft Report was issued to the Ministry of New and Renewable Energy on 15 July 2014. The Ministry communicated its response vide letters dated 17 October 2014 and 07 January 2015. The response of the Ministry to the recommendations and rebuttal of Audit are given in **Annexure I**.

## 1.11 Acknowledgement

Audit acknowledges the cooperation and assistance extended by management of IREDA and MNRE.