PART I

INTRODUCTION

Chapter 1:

Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) - An Overview

1.1. Rural electrification

Rural development and industrialization are considered fundamental for the economic growth of a country and electricity is seen as one of the agents providing impetus to such growth. Electricity is no longer viewed as a novelty but an essential and necessary requirement and in recent times, this has led to electricity being recognized as a basic human need in both rural and urban areas.

While urban areas in the country have witnessed growth in electricity consumption, the situation in rural areas has been far from ideal. Over the years, Government of India (GOI) has emphasized the need for rural electrification to improve the quality of life and growth of rural economy. Rural electrification (RE), in general terms, has meant bringing electrical power to rural and remote areas. Such power is intended to be used for domestic purposes as well as for mechanization of farming operations.

The Electricity Act, 2003 mandates that GOI shall endeavor to supply electricity to all areas including villages and hamlets. In accordance with the Electricity Act, GOI has a well-enunciated Rural Electrification Policy (REPOL), notified in August 2006, the basic aim of which is to ensure rapid economic development by providing access to electricity to all the villages and households. REPOL acknowledged that the requirements of agriculture and other important activities including small and medium industries, health care, education and information technology must be catered to. REPOL seeks to improve the quality of life in rural areas by supplying electricity for lighting up rural homes, shops, community centers, public places *etc*., in all villages and also to facilitate the development of productive loads. Broadly, goals of REPOL are:

- Provision of access to electricity to all households by year 2009;
- Ensuring quality and reliable power supply at reasonable rates; and

- Minimum lifeline consumption of one unit per household per day as a merit good by 2012.

Initial focus of rural electrification programmes of the Ministry of Power (MOP) was on *'Electrification for Irrigation'* to enhance agricultural produce. This was reflected in the definition of village electrification which was accepted till as late as October 1997, *i.e. "a village should be classified as electrified if electricity is being used within its revenue area for any purpose whatsoever."* However, in consultation with State Governments and State Electricity Boards (SEB), this definition was reviewed and a new definition was adopted in October, 1997, which *inter alia* stated that *"a village will be deemed to be electrified if the electricity is used in the inhabited locality, within the revenue boundary of the village, for any purpose whatsoever."* In February 2004, the definition was broadened and a village was to be classified as electrified only if:

- *"Basic infrastructure such as distribution transformer and distribution lines were provided in the inhabited locality as well as the dalit basti/hamlet where it exists. (For electrification through Non-conventional Energy Sources a distribution transformer may not be necessary);*
- *Electricity was provided to public places like schools, panchayat offices, health centres, dispensaries, community centres etc; and*
- *The number of households electrified was at least 10 per cent of the total number of the households in the villages."*

1.2. Status of rural electrification

In 1947, only 1,500 villages were electrified and per capita consumption was 14 units. Since then, GOI had launched rural electrification programmes such as:

- Rural Electrification under Minimum Needs Programme (MNP);
- Pradhan Mantri Gramodaya Yojana (PMGY);
- Kutir Jyoti Scheme;
- Accelerated Rural Electrification Programme (AREP); and
- Accelerated Electrification of One lakh Villages and One crore Households (AEOLVOCH).

In spite of these efforts targeted towards achieving 100 *per cent* rural electrification, electricity was being provided to only 43.53 *per cent* of rural households by 2001. As per the 2001 census, more than one lakh villages and approximately 7.80 crore rural households remained to be electrified. Key indicators reflecting the status of rural electrification, as on 31 March 2004, prior to the launch of RGGVY are given in **Table 1** and **Figure 1**. As may be seen, according to the prevailing (2004) definition, 81 *per cent* of villages in India had been electrified. State-wise details of village and rural household electrification are given in

Annexe 1 and 2. RGGVY was launched *inter alia* for electrification of balance un-electrified villages.

Table 1: Key indicators of Rural Electrification as on 31 March 2004

Total Villages as per 1991 Census[1]	Total No. of Villages electrified	Balance Un-electrified Villages	Percentage of Un-electrified Villages
5,87,556	4,74,982	1,12,401*	19.13

* *As per the new definition of village electrification (effective from 2004-05)*

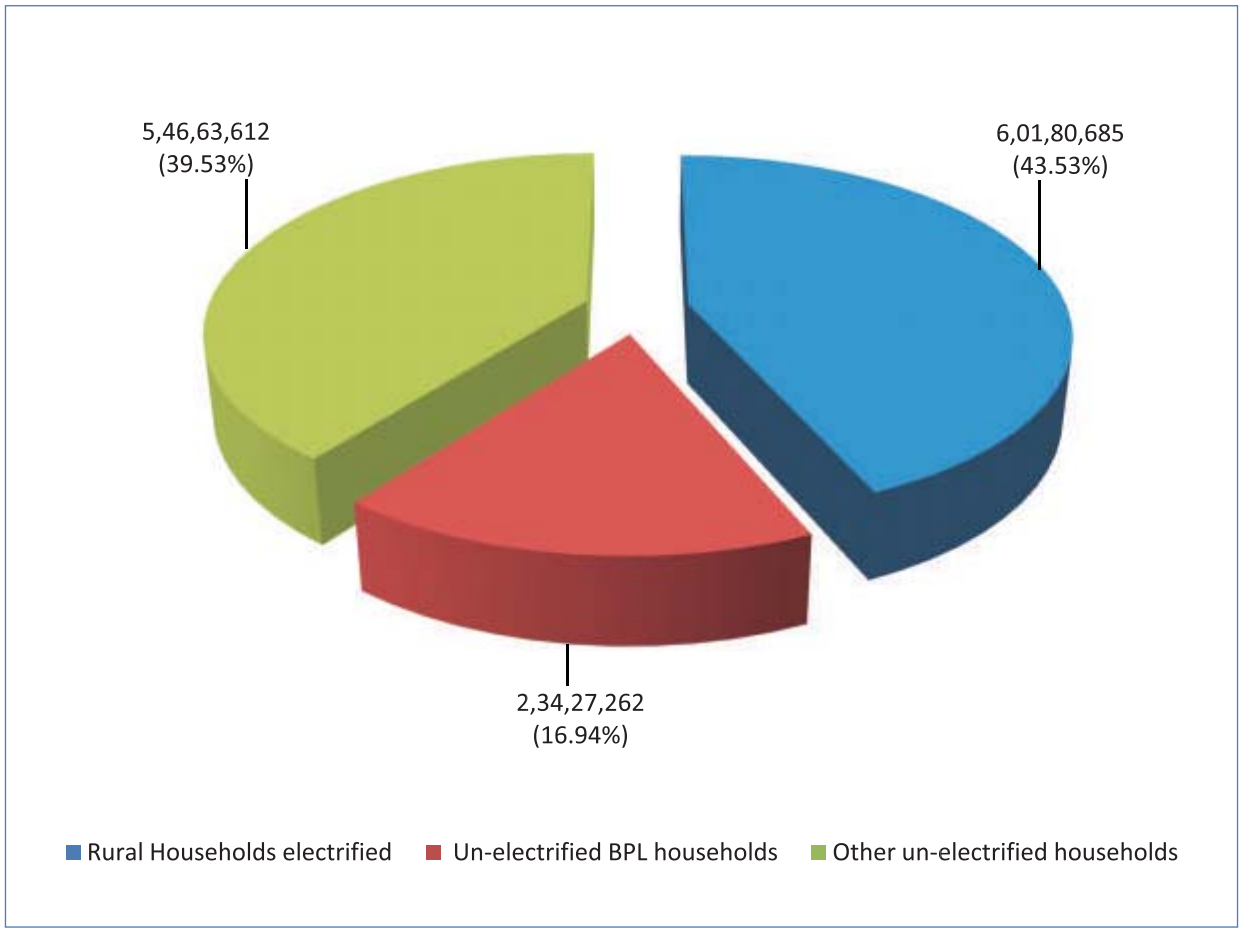

Figure 1: Key indicators of Rural Electrification (2001 Census)

[1] Number of villages is taken as per 1991 census in MOP RGGVY Office memorandum dated 18 March 2005.

1.3. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)

MOP launched (March 2005) Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) to accelerate the pace of village electrification. In doing so, MOP merged all existing rural electricity programmes of the GOI with RGGVY. The main objectives of RGGVY were to:

- Electrify all villages and habitations,
- Provide access to electricity to all households,
- Give electricity connection to Below Poverty Line (BPL) families free of charge,
- Accelerate rural development, generate employment and eliminate poverty through irrigation, small scale industries, cold chains, healthcare, education and IT, and
- Bridge the urban rural gap and provide reliable and quality power supply to rural areas.

As the earlier focus of electrification in rural areas had been primarily for irrigation and had been done generally by extending the low tension (LT) lines in a piece-meal manner resulting in unreliable and limited hours of power supply, the new programme aimed at a qualitative transformation of the rural electricity infrastructure, which is depicted in **Figure 2**.

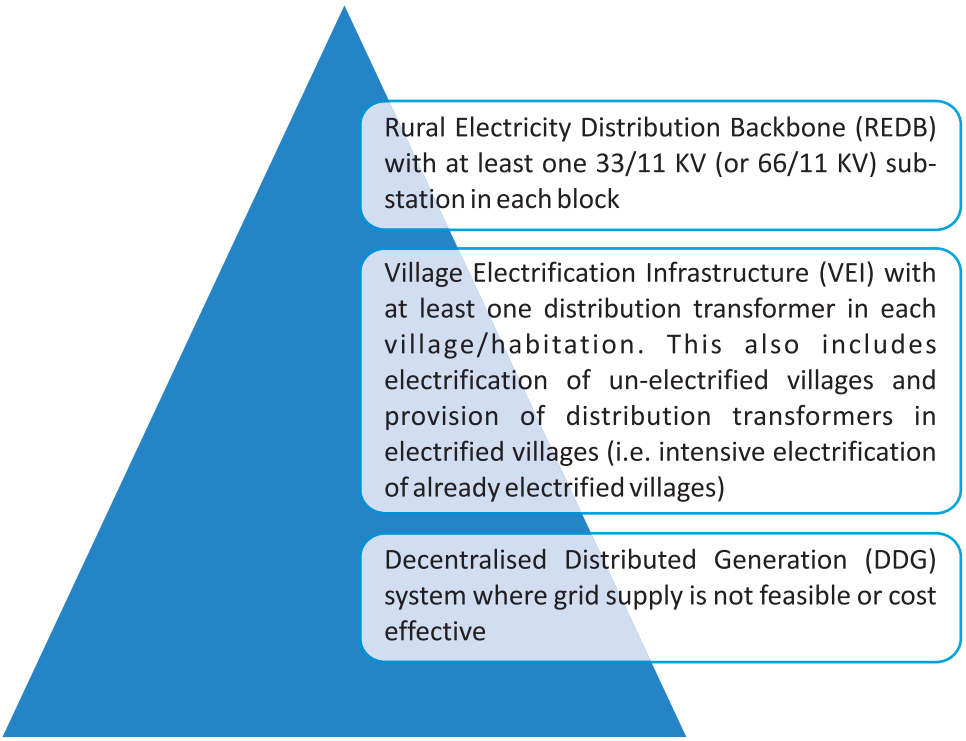

Figure 2: Infrastructure under RGGVY

RGGVY was launched to fulfill the commitment of the National Common Minimum Programme (NCMP) to complete household electrification in 5 years, *i.e.* by 2009. Targets for electrification were 1,25,000 un-electrified villages and 7.8 crore rural households (RHH)

including free electricity connections to 2.34 crore Below Poverty Line (BPL) households by 2009. The period of implementation of the scheme was later (January 2008) extended to 2012. Year-wise targets for achievement of village electrification are given in **Table 2**.

Table 2: Targets under RGGVY

Year	No. of un-electrified villages targeted to be electrified all over India
2005-06	10,000
2006-07	40,101#
2007-08	9,000
2008-09	15,000
2009-10	17,500
2010-11	17,500
2011-12	14,500

 # This includes electrified villages also.

(Source: Rural Electrification Corporation)

RGGVY provided a higher level of capital subsidy compared to earlier schemes with focus on quality of power supply in rural areas and emphasis on revenue sustainability, as summarized below.

- Ninety *per cent* capital subsidy was to be provided towards overall cost of projects.
- It was mandatory for States to make adequate arrangements for supply of electricity and without discrimination in the hours of supply to rural and urban households.
- Prior commitment of the States was required to be obtained before sanction of projects for :
  - *deployment of franchisees for the management of rural distribution in projects financed under the scheme, and*
  - *provision of requisite revenue subsidies to the State Utilities as required under the Electricity Act, 2003.*

1.4. Role of major stakeholders

Roles of the various entities in planning, execution and monitoring of the scheme **are summarized in Figure 3**.

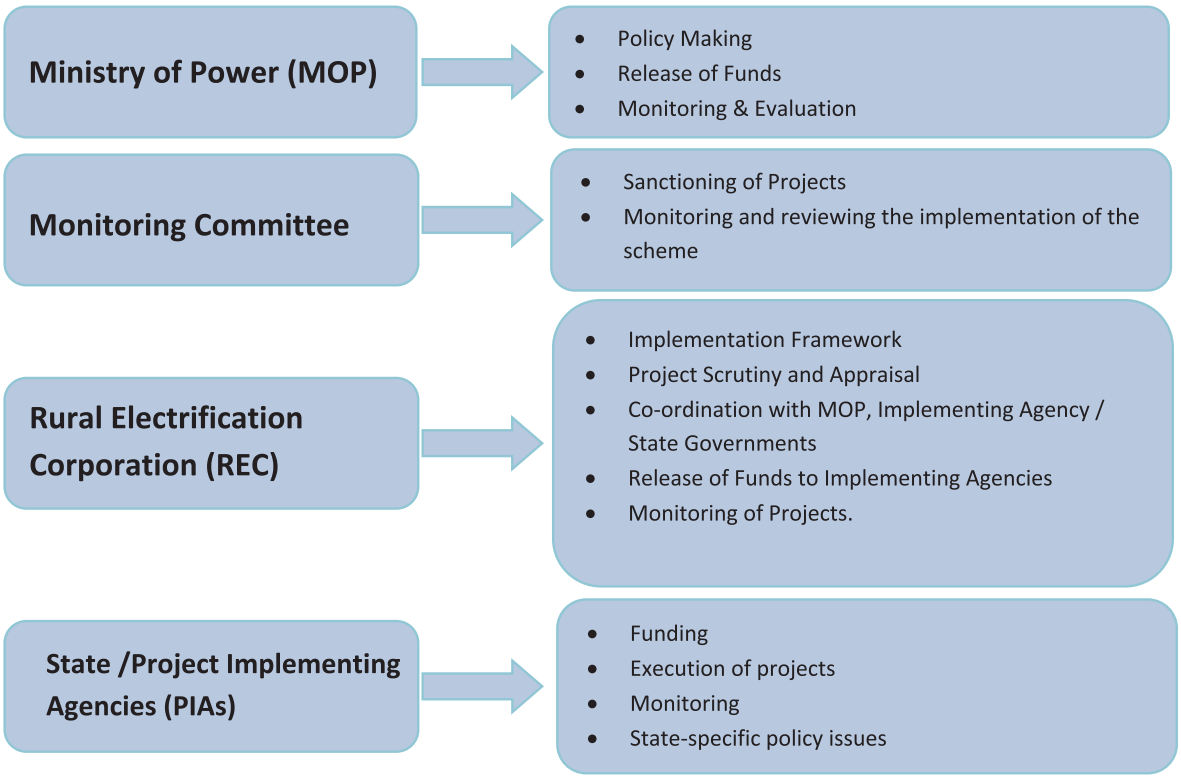

Figure 3: Organisational Structure

1.4.1. Ministry of Power (MOP)

MOP was the nodal Ministry for implementation of RGGVY. It had to set up the Monitoring Committee (MC) under the Chairmanship of Secretary, MOP which was responsible for sanction of projects, revised cost estimates, monitoring and review of implementation of the scheme, in addition to issuing necessary guidelines from time to time for effective implementation of the scheme.

1.4.2. Rural Electrification Corporation (REC)

REC was the nodal agency for implementing RGGVY. All funds for the programme were to be channelized through REC, which would disburse the capital subsidy being provided by GOI and release the remaining funds as loan assistance on soft terms, on need basis.

Besides financing of the project, REC was required to establish the framework for implementation involving formulation of technical specifications, procurement and bidding conditions, guidelines for project formulation, field appraisal and concurrent monitoring and evaluation to ensure quality and timely implementation.

1.4.3. States/State Power Utilities (SPUs)

The State Governments were responsible for the following:

- Finalization of Rural Electrification (RE) Plans in consultation with MOP and notifying the same within six months.
- Contribution of 10 *per cent* of the project cost through own resources/loan from financial institutions including REC.
- Deployment of franchisees for the management of rural distribution in projects financed under the scheme.
- Provision of requisite revenue subsidies to the State Power Utilities (SPUs) as required under the Electricity Act, 2003.
- Guarantee of a minimum daily supply of 6-8 hours of electricity in RGGVY network.
- Ensuring regular meetings of district committee to coordinate and review the extension of electrification in the district, review the quality of power supply, consumer satisfaction, energy efficiency and conservation.
- Ensuring regular meetings of State Level Coordination Committee (SLCC) to review RGGVY and resolve bottlenecks.
- Provide village-wise list of un-electrified villages and BPL households.

1.4.4. Central Public Sector Undertakings (CPSUs)

To augment implementation capacities for the programme, REC concluded Memoranda of Understanding (MoUs) with National Thermal Power Corporation (NTPC)[2], Power Grid Corporation of India Limited (PGCIL), National Hydro-electric Power Corporation (NHPC) and Damodar Valley Corporation (DVC) to make available project management expertise and capabilities of these organizations to States willing to use their services. States could opt for the services of a CPSU for (a) project formulation, (b) system planning, (c) design engineering, (d) procurement of goods and services, (e) construction/ implementation/commission and (f) project monitoring and supervision of quality of work.

1.5. Funding pattern

MOP approached Cabinet Committee on Economic Affairs (CCEA) in November 2004 seeking approval to the scheme for rural electricity infrastructure and household electrification (subsequently renamed as RGGVY) with the following cost details.

[2] Work of execution under RGGVY was delegated by NTPC to its subsidiary NTPC Electricity Supply Company Limited (NESCL)

Table 3: Cost estimates approved for RGGVY

Sl. No.	Name of item	₹ in crore
	Electrification of 1.25 lakh un-electrified villages including REDB, VEI and last mile service connectivity to 10 *per cent* Households in the village @ ₹ 6.50 lakh /village	8,125
2	Augmentation of backbone network in already electrified villages having un-electrified inhabitations @ ₹ 1 lakh/village for 4.62 lakh villages	4,620
3	Rural Household electrification of population under BPL, *i.e.* 2.34 crore households @ ₹ 1,500 per household	3,510
4	Total outlay for the scheme (rounded off)	16,000
5	Subsidy component	14,750

CCEA approved (December 2004) the scheme in principle with a provision of ₹ 5,000 crore towards subsidy for the remaining period (2005-07) of X Plan (2002-07).

MOP again approached CCEA (September 2007) for continuing the scheme in XI Plan (2007-12) with revised cost estimates of ₹ 51,955 crore[3] (90 *per cent* subsidy component being ₹ 46,812 crore). The revised scheme was also expected to cover over 1.25 lakh un-electrified villages and 2.5 crore BPL households.

While working out the revised cost estimates, the norms for various components were revised as shown in **Table 4.**

Table 4: Cost estimates approved for RGGVY

Sl. No.	Name of item	Cost in XI plan
1	Electrification of un-electrified villages	@ ₹ 13 lakh/village (in normal terrain) @ ₹ 18 lakh/village (for hilly, tribal, desert areas)
2	Intensive electrification of already electrified villages	@ ₹ 4 lakh/village (in normal terrain) @ ₹ 6 lakh/village (for hilly, tribal, desert areas)
3	Cost of electricity connection to BPL households	₹ 2,200 per BPL household

[3] Detailed working not indicated in the proposal to CCEA.

After adjusting ₹ 5,000 crore already approved in X Plan, the requirement of subsidy for XI Plan was projected by MOP at ₹ 41,812 crore (₹ 46,812 crore *less* ₹ 5,000 crore).

However, based on resource availability in XI Plan assessed by Planning Commission, grant requirements were restricted to ₹ 28,000 crore. The proposal of MOP was approved by CCEA (October 2007).

235 projects amounting to ₹ 9,733.35 crore were sanctioned during X Plan for implementation while 341 projects amounting to ₹ 16,694.43 crore were sanctioned in XI Plan. The cost of a project was to be met through 90 *per cent* capital subsidy provided by GOI and 10 *per cent* through contribution from the State through own resources/loan from financial institution.

Details of funds allocated for RGGVY to MOP through Budget estimates (BE)/Revised estimates (RE), funds released by MOP to REC for implementation of scheme and by REC, in turn, to PIAs during 2004-05 to 2011-12 are given in **Table 5**. Details of state-wise releases by REC are given in **Annexe 3**.

Table 5: Release of capital subsidy

(Amounts in ₹ in crore)

Year	Amount allocated to MOP (BE)	Amount allocated to MOP (RE)	Amount Released by MOP to REC	Amount released by REC to PIAs
2004-06	1,500.00	1,500.00	1,500.00	1,402.60
2006-07	3,000.00	3,000.00	3,000.00	3,014.37
2007-08	3,983.00	3,944.56	3,913.45	3,368.30
2008-09	5,055.00	5,500.00	5,500.00	5,109.58
2009-10	6,300.00	5,000.00	5,000.00	5,987.43
2010-11	5,500.00	5,000.00	5,000.00	3,997.87
2011-12	6,000.00	3,544.00	2,237.31	2,772.22
Total	**31,338.00**	**27,488.56**	**26,150.76**	**25,652.37**

Reasons for shortfall in release of funds by MOP/REC were mainly inadequate capacity of PIAs to take up and implement projects as discussed in para 4.3.1 *infra.* PIAs had intimated utilization of ₹ 22,510.14 crore (20 May 2012) which was 88 *per cent* of the funds released by REC and 82 *per cent* of the funds allocated to MOP. The status of release of funds by REC to PIAs and utilization by PIAs as of February 2013 was ₹ 26,034.65 crore and ₹ 24,547.58 crore respectively. The details of unutilized funds held by PIAs and the financial implication in terms of unadjusted interest are discussed subsequently in paras 4.3.2 and 4.5.

1.6. Monitoring

No specific quality control or monitoring system was developed for X Plan projects. The scheme was supposed to be subject to concurrent evaluation.[4] A view on modification required for implementation during XI Plan was to be taken after a comprehensive review towards the end of X Plan.

A three-tier monitoring system was introduced during XI Plan. In the first tier, a third party was to be appointed by the implementing agency, which would ensure on a concurrent and ongoing basis that the utilized material and workmanship was in accordance with specifications and guidelines. REC would get the inspection of works done through outsourcing to reputed inspection agencies or retired personnel designated as REC Quality Monitors on the second tier. MOP was to engage independent evaluators designated as National Quality Monitors (NQMs) to conduct random inspection for effective implementation of the scheme in the third tier, with particular reference to quality specifications. Deficiencies in coverage, reporting and corrective action in the monitoring process are discussed in para 6.2 *infra.*

[4] As per CCEA note dated 10 February 2005