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RAJIV GANDHI GRAMEEN VIDYUTIKARAN YOJANA

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ABBREVIATIONS

APL	ABOVE POVERTY LINE
APDP	ACCELERATED POWER DEVELOPMENT PROGRAMME
APDRP	ACCELERATED POWER DEVELOPMENT REFORM PROGRAMME
BGD	BENEFICIARY GROUP DISCUSSION
BOOT	BUILD, OWN, OPERATE AND TRANSFER
BPL	BELOW POVERTY LINE
BST	BULK SUPPLY TARIFF
CLF	COMPACT FLUORESCENT LAMP
CMIE	CENTRE FOR MONITORING INDIAN ECONOMY
DDG	DECENTRALIZED DISTRIBUTED GENERATION
DE	DE-ELECTRIFIED
DISCOM	DISTRIBUTION COMPANY
DJRC	D. J. RESEARCH & CONSULTANCY PVT. LTD.
DPR	DETAILED PROJECT REPORT
DVC	DAMODAR VALLEY CORPORATION
EL	ELECTRIFIED
FGD	FOCUS GROUP DISCUSSION
GP	GRAM PANCHAYAT
HE	HYDRO ELECTRIC
HH	HOUSEHOLD
IPP	INDEPENDENT POWER PRODUCERS
IT	INFORMATION AND TECHNOLOGY
JE	JUNIOR ENGINEER
KM	KILOMETRES
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVI	KHADI AND VILLAGE INDUSTRIES
KVIC	KHADI AND VILLAGE INDUSTRIES COMMISSION
KW	KILOWATTS
LOA	LETTER OF AWARD
MCB	MINI CIRCUIT BREAKER
MeECL	MEGHALAYA ENERGY CORPORATION LIMITED
MePDCL	MEGHALAYA POWER DISTRIBUTION CORPORATION LIMITED
MePGCL	MEGHALAYA POWER GENERATION CORPORATION LIMITED
MePTCL	MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED
MeSEB	MEGHALAYA STATE ELECTRICITY BOARD
MNP	MINIMUM NEEDS PROGRAMME
MU	MILLION UNITS
MW	MEGAWATTS
NA	NOT APPLICABLE
NEEPCO	NORTH EASTERN ELECTRIC POWER CORPORATION LIMITED
NESCL	NTPC ELECTRIC SUPPLY COMPANY LTD.
NGO	NON-GOVERNMENTAL ORGANIZATIONS
NHPC	NATIONAL HYDRO-ELECTRIC POWER CORPORATION
NQM	NATIONAL QUALITY MONITORS

NTPC	National Thermal Power Corporation Ltd
ONGC	Oil and Natural Gas Corporation Limited
PIA	Project Implementing Agency
PQCC	Project Quality Control Committee
RE	Rural Electrification
REC	Rural Electrification Corporation
REDB	Rural Electricity Distribution Backbone
RGGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
RQM	REC Quality Monitors
SDO	Sub Divisional Officer
SEB	State Electricity Board
SME	Small and Medium Enterprise
STD	Subscriber Trunk Dial
TV	Television
UC	Utilization Certificate
UE	Un-Electrified
VEI	Village Electrification Infrastructure
Wt	Watt

EXECUTIVE SUMMARY

This study evaluates the Scheme Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), launched on 4th April 2005 for attaining the goal of providing access to electricity to all rural households in next five years. Broadly the scheme intends at accelerating rural development, generating employment and eliminating poverty through development in areas of irrigation, small scale industries, Khadi and Village Industries (KVI) industries, cold chains, health care, education and IT. Rural Electrification Corporation Ltd (REC) is the Nodal agency for implementing RGGVY. A Result-Based Management Evaluation Framework is adopted to evaluate RGGVY performance and its future prospects.

Three Districts where rural electrification work was complete were studied in detail. Blocks were selected by stratified random sampling technique giving preference to remote and less developed blocks. A total of 9 Blocks out of 13 were covered and from each sample Block, 5% of total number of electrified villages under RGGVY were selected by simple random sampling method for data/information collection and discussion. A total of 470 households from various socio-economic groups in 47 villages were covered. In the selected areas 47 Beneficiary Group Discussions (BGD), and also Focus Group Discussions (FGD) were conducted. Both qualitative and quantitative analyses have been carried out on the basis of primary survey data and secondary published and unpublished official data and information.

Since inception Rs.76.75 crore has been sanctioned and Rs.60.15 crore (78.37%) released of which Rs.48.49 crore (81%) has been utilized up to September 2010. Utilization varied between 66% in East Khasi to nearly 100% in Jaintia Hills. A little over 79% of BPL sample households have received power connection through RGGVY. While 87% of sample villages have transformers of 25 KV, the rest have lower capacity transformers. It is found that proper survey was not made to estimate power demand as in 15%-20% cases, the transformers appear to be at capacity even at the current low level of household consumption. The quality of power supply is generally good and most consumers are satisfied.

Positive impacts in the form of better livelihood and increased household income and expenditure on necessities have been observed. Educational performance of school going children has improved and rural information dissemination has considerably increased. Entertainment through TV and other media has helped villagers to relax after a day's hard work. Women have been greatly relieved because of saving from not buying kerosene at

high prices. The benefits in terms of awareness creation, adoption of improved practices, and increase in livelihood options have already noticed within a very short span. Increased income and higher level of utilization of labour time on production activities and entertainment are good indicators of positive developments. Rural electrification through RGGVY should be intensified for all-round development of rural Meghalaya. Capacity constraints found in the State to fully implement this programme need to be removed through use of consultants while the capacity problems are being addressed through medium-term planning.

1. CHAPTER-I

1.1. INTRODUCTION

Energy is one of the essential infrastructures for economic growth, employment generation and poverty alleviation. The rate of economic growth in the new globalized economy is dependent on the availability of adequate, reliable and quality energy at competitive rates. Therefore, the basic responsibility of the "Electricity Industry" as the principal source of energy is to provide adequate power at economical cost, while ensuring reliable and quality supply.

Rural electrification objective in initial years of planning in India was to be a social amenity and remained confined to only a few states. However with the importance of electricity increasing with a need for rapid development in states, REC began giving 90% grant to states and 10% as loan amount for investment, to ensure electrification of villages in all states. With a large objective, this was only possible with utilizations of funds appropriately by the SEB's (State Electricity Boards). As of 1999, there was 100% rural electrification achievement in developed states like Tamil Nadu, Karnataka etc. However in backward states, rural electrification coverage was barely 50 per cent (Five Year Plan documents: energy, CMIE, March - April 1999).

With the goal to bridge rural-urban gap and to provide reliable and quality power supply to rural areas, Ministry of Power, Government of India launched Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) on 4th April 2005 by merging all ongoing rural electrification programmes of the Ministry i.e. Rural Electrification under Minimum Needs Programme (MNP), Kutir Jyoti Scheme, and Accelerated Electrification of one lakh villages and more than one crore households.

1.1.1. THE SCHEME

RGGVY, launched on 4th April 2005, is a scheme aiming at 100% rural electrification and household electrification. This scheme was launched for attaining the goal for providing access to electricity to all households in next five years. Broadly the scheme intends at accelerating rural development, generating employment and eliminating poverty through development in areas of irrigation, small scale industries, KVI industries, cold chains, health care, education and IT. Rural Electrification Corporation Ltd (REC) is the Nodal agency for implementing Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). Under this Yojana, 90% grant is provided by Government of India and 10% as loan by Rural Electrification Corporation (REC), to the State Governments. District-wise DPRs (Detailed Project Report) are prepared by the concerned Distribution Company (DISCOM), Power Department, State

Electricity Board (SEB) or Central Public Sector Utilities such as NTPC Electric Supply Company Ltd. (NESCL), POWERGRID, National Hydroelectric Power Corporation (NHPC) or Damodar Valley Corporation (DVC), as the case may be, and submitted to Rural Electrification Corporation (REC). Detailed Project Reports (DPR) are scrutinized and appraised by the REC and thereafter placed before the Monitoring Committee at Ministry of Power for consideration and approval of the project. REC is also responsible for providing quality and timely monitoring of the program during its implementation, according to prescribed guidelines. The following are categories of implementing agencies:

- State Power Distribution Companies
- State Electricity Boards
- Government Power Department
- Central Power Sector Utilities
- Co-operative Societies

1.1.2. THE AIMS OF RGGVY ARE

- Electrifying all villages and habitations as per new definition
- Providing access to electricity to all rural households
- Providing electricity connection to Below Poverty Line (BPL) families free of charge

1.1.3. INFRASTRUCTURE UNDER RGGVY

- Rural Electricity Distribution Backbone (REDB) with 33/11 KV (or 66/11 KV) sub-station of adequate capacity in blocks where these do not exist
- Village Electrification Infrastructure (VEI) with provision of distribution transformer of appropriate capacity in villages/habitations
- Decentralized Distributed Generation (DDG) Systems based on conventional & non conventional energy sources where grid supply is not feasible or cost-effective. This was designed in the policy to meet power demand in villages where accessibility would be very low and infrastructure costs would run high.

1.1.4. FEATURES OF INTERVENTION

- Preparation of District based detailed project reports for execution on turnkey basis
- Involvement of central public sector undertakings of power ministry in implementation of some projects
- Certification of electrified village by the concerned Gram Panchayat

- Deployment of franchisee for the management of rural distribution for better consumer service and reduction in losses
- Undertaking by States for supply of electricity with minimum daily supply of 6-8 hours of electricity in the RGGVY network
- Making provision of requisite revenue subsidy by the state
- Determination of Bulk Supply Tariff (BST) for franchisee in a manner that ensures commercial viability
- Three tier quality monitoring Mechanism for XI Plan Schemes made mandatory
- Web based monitoring of progress
- Release of funds linked to achievement of pre-determined milestones
- Electronic transfer of funds right up to the contractor level
- Notification of Rural Electrification Plans by the state governments

2. CHAPTER-II

2.1. OBJECTIVES AND METHODOLOGY

2.1.1. OBJECTIVES OF THE STUDY

Evaluation of different developmental Schemes/Programmes plays a vital role in providing feedback information to the policy makers and planners on the actual performance and its impact. It also helps in formulation of better developed plans in future. Directorate of Programme Implementation and Evaluation, Government of Meghalaya selected D.J. Research and Consultancy Pvt. Ltd., to conduct the evaluation study on RGGVY in Meghalaya. The basic objective of this study is to evaluate the extent to which the Programme has achieved its objective and find out the factors responsible in its progress and suggest remedial measures that need to be employed to overcome the difficulties. The Study also aims at providing feedback information to the policy makers and planners in the state on the actual performance and its impact. This evaluation study presents findings on progress, success, constraints and remedial measures to overcome the difficulties and provides an insight into the impacts of the intervention.

The specific objectives of the study are:

- Document the extent/amount/type of benefits received by the beneficiaries
- Evaluate the implementation of schemes/programmes/projects in the States with a view to ascertaining the progress made by them vis à vis target and objectives
- To study physical targets and achievements under each component
- Review financial devolution, and progress in expenditure and determine development effectiveness
- Assess impact on poor in particular and economy (region) in general
- Review implementation process and suggest improvements
- Search for “Best Practices” and factors leading to success
- Identify constraints and recommend what can be done
- Assess the benefit delivery mechanism and timely receipt of the benefit and reasons for delay
- Assess the level of awareness and clarity about the scheme amongst the stakeholders
- Assess the existing monitoring and supervision mechanism and its effectiveness at various levels
- Assess the public grievance redress system in vogue at various levels and its effectiveness/usefulness

2.1.2. METHODOLOGY FOR THE STUDY

The RGGVY programme is being evaluated after four years of its implementation in the state of Meghalaya. Evaluation study was carried out in a professional, realistic, diplomatic and ethical manner and supported by specific data to make an unbiased evaluation of programme.

- Both quantitative and qualitative data were collected, processed and analyzed
- Both secondary and primary data were used
- Secondary sources included DPR, official portal of the programme and other published materials from institutional sources
- Primary data and information were collected by DJRC research and investigating team by adopting standard and approved methods used for evaluation study
- Primary data were collected through the two structured schedules (Village Level Schedule and Household Level Schedule

2.1.2.1. SELECTION OF THE DISTRICT

The selection of sample districts was based on where the RGGVY programme is being implemented. In Meghalaya, RGGVY programme has been implemented in three districts i.e. Ri Bhoi, East Khasi Hills and Jaintia Hills. In rest of the districts, the survey for power and infrastructure requirements have been done. Infrastructure works are under the process of being carried out currently in the other four districts. After consultation with the state level officials the sample size was finalized for three districts. The data and information would give an insight into the after effects of implementation.

2.1.2.2. SELECTION OF THE VILLAGE

Villages were selected by stratified random sampling technique giving preference to remote and less developed areas. Villages covered in the sample have been chosen from the villages covered through RGGVY. Executive Engineers and SDOs have also been consulted in selection of villages.

2.1.2.3. REFERENCE PERIOD

The reference period of this evaluation study was from 2005-06 to 2009-10.

2.1.3. SAMPLE DETAILS

1. Three Districts of the State were covered
2. Blocks were selected by stratified random sampling technique giving preference to remote and less developed blocks. A total of 9 Blocks (out of 13 Blocks =69%) were covered

3. From each sample Block, 5% of total number of electrified villages under RGGVY were selected by simple random sampling method for data/information collection and discussion. A total of 47 villages were covered.
4. Ten households from each sample village were selected for survey with proper representation from each category - social, economic, gender, physically handicapped, etc. again by random sampling within any category. A total of 470 households were interviewed.
5. A total number of 47 Beneficiary Group Discussions (BGDs), and also 47 Focus Group Discussions (FGD) were held at every sample village for peer review.

Table 1 : *Sample Abstract*

District	No. of Block Covered Under RGGVY	No. of Sample Block	No. of Electrified villages under RGGVY	No. of Sample village	No. of household interviewed
East Khasi Hills	7	4	237	16	160
Jaintia Hills	4	3	293	14	140
Ri Bhoi	2	2	350	17	170
Overall	13	9	880	47	470

Source: DJRC Primary Survey for RGGVY, 2010

The abstract of sample is presented in table 1. (Sample detail is presented in Annexure 1)

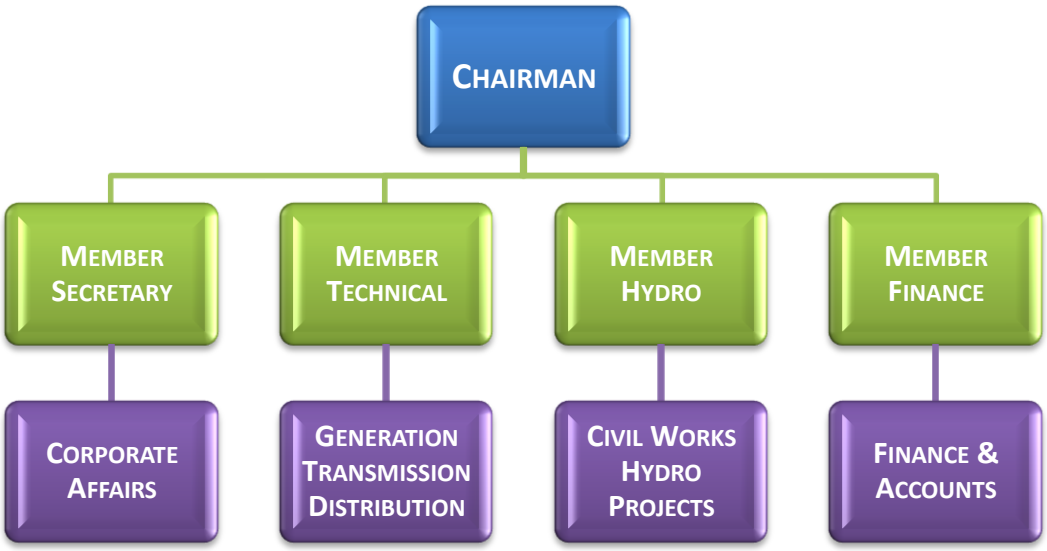
2.1.4. LIMITATION OF THE STUDY

The field survey covered only three districts of the state i.e. Ri Bhoi, East Khasi Hills and Jaintia Hills. In the other four districts, RGGVY programme is in the initial stage of implementation. Until now only the survey for requirement in villages has been carried out. The list of de-electrified, un-electrified and electrified villages has been prepared and it has been given to the contractor. The cost for implementation has been revised in these districts. These four districts received the Letter of Award (LOA) on 06.01.2010.

3. CHAPTER-III

3.1. ORGANISATIONAL SETUP

The following organisational chart shows the organizational setup at MeSEB



3.1.1. POWER SECTOR IN MEGHALAYA (INSTITUTIONS INVOLVED IN POWER SECTOR)

The first small hydro-electric project in the North-East, the Umtru H. E. Project with 8.4 MW was constructed near Byrnihat in 1953 and was commissioned in July, 1957. Umiam Stage-I, Stage-II, Umiam-Umtru Stage-III (Kyrdemkulai) and Umiam-Umtru Stage-IV were also commissioned in Meghalaya. Until the commissioning of the Loktak H.E. Project in Manipur and Kopili H.E. Project in Assam, the state of Meghalaya pioneered the development of water power generation. Prior to commissioning of the Umiam H.E. Project Stage-I in 1965 the electric power supply needs of Shillong were met from small hydro power stations and diesel power stations of capacity 1500 KW and 800 KW respectively. The diesel sets have been disposed off since they became outdated. The electric energy generated by Meghalaya during 1975 was 176MU and 70% of this energy was supplied to Assam at a very nominal rate as envisaged in the terms of agreement during bifurcation. At that point of time, only Shillong, the capital city and few places like Sumer, Byrnihat and other towns/villages numbering only 261 enjoyed electricity. As a matter of fact, the consumers of the whole state numbered just 7400, while the rest of the population depended on fossil fuel and some diesel power generation for cooking, heating and even lighting.

Table 2 : *History of Power Sector, Meghalaya*				
Items	Unit	Position as on the year of		
		1975-76	2008-09	2009-2010
Installed Generation capacity	Megawatts	65.20	185.20	186.70
Energy Generation	Million Kilowatt Hours	176.08	554.134	533.607
Connected load within the State	Megawatts	20.96	521.933	NA
Energy consumption within the State	Million Kilowatt Hours	33.346	929.318	NA
Number of consumer within the State	Number	7377	248817	NA
Number of Grid Sub-Station	Number	2	11	11
Number of Electrified Villages	Number	261	3428	NA
Per capita consumption	Kilowatt hour	NA	408	NA
Source: www.meseb.nic.in				

3.1.2. MEGHALAYA ENERGY CORPORATION LIMITED (MEECL)

Prior to setup of Meghalaya Energy Corporation Limited (MeECL), Meghalaya Electricity Board (MeSEB) was responsible for the coordinated development of Generation, Transmission and Distribution of electricity in Meghalaya. However, Meghalaya Electricity Board (MeSEB) has been reformed into four bodies under Meghalaya Power Sector Reforms Transfer scheme, 2010, as given below.

1. Meghalaya Energy Corporation Limited (MeECL), The Holding Company
   - Role: Coordinating and smooth functioning of distribution, generation and transmission of electricity in the State of Meghalaya
2. Meghalaya Power Distribution Corporation Limited (MePDCL), The Distribution Utility
   - Role: Distribution of power in the State of Meghalaya
3. Meghalaya Power Generation Corporation Limited (MePGCL), The Generation Utility
   - Role: Generation of power in the State of Meghalaya
4. Meghalaya Power Transmission Corporation Limited (MEPTCL), The Transmission Utility
   - Role: Transmission of power and providing open access facilities to the consumers in the State of Meghalaya

This has been done under the provisions of the Indian Electricity Act 2003, to bring about accountability, transparency, competitiveness, reduction of losses and improved performance for better customer satisfaction.

Meghalaya Energy Corporation Limited (MeECL), is responsible for the coordinated development of generation, transmission and distribution of electricity in a most efficient and economical manner. In the discharge of this duty, the Corporation operates its own

generating plants including its transmission and distribution network with the help of a work force of about 3612 employees in various levels.

3.1.2.1. POWER GENERATION SECTOR

Govt. of Meghalaya decided to involve the State Sector, Joint Sector, Central Sector and Private Sector for execution of power projects so as to meet the increasing power demand and to harness the untapped power potential (both hydro and thermal) of the State. The various sectors are defined as under:

3.1.2.2. STATE SECTOR

The State Government shall set up a State Generating Entity for promoting the Projects identified in the State Sector/Joint Sector. The State Generating entity shall strictly follow the Govt. policy in terms of employment and other developmental activities.

3.1.2.3. JOINT SECTOR

The State Generating entity shall also explore the possibility of joint ventures with other generating companies to achieve its objectives in view of the constraints of limited financial resources available with the State Government. The State Generating entity and a generating company, selected by the process of bidding, shall enter into a joint venture agreement which will clearly define the extent of participation by each partner and sharing of risks relating to implementation and operation of the project.

3.1.2.4. CENTRAL SECTOR

This sector comprises of Government of India undertakings such as North Eastern Electric Power Corporation Limited (NEEPCO), NHPC, NTPC, DVC, Oil and Natural Gas Corporation Ltd. (ONGC) etc.

3.1.2.5. PRIVATE SECTOR

The private sector comprises of a registered private owned company/ consortium.

Power generation can be both hydro power and thermal power. There is a huge potential in the state to build both hydro power project (small, medium and large) and thermal power projects (owing to a large coal reserve in the state).

Some of the key guidelines[1] for power generation and its developers are as follows:

- The Developers shall be free to dispose of power from the Projects, after allowing for royalty in the shape of free power and meeting the demand in the State.

[1] Source: http://meghalaya.nic.in/powerpolicy/generation.html

- The incentives/concessions offered by the Ministry of New and Renewable Energy shall be applicable for small hydro projects up to 25 MW. The State Govt. will facilitate setting up of such projects.
- The State Government (Govt.) shall encourage setting up of Captive power projects by the private sector to augment the power supply. Private industries will be permitted to go for captive generation up to 60 MW subject to the aforesaid conditions. For higher captive capacity, decision will be taken by the State Government on a case to case basis. Open access shall be facilitated wherever necessary according to the provisions of the act.
- The selection for IPPs will be based on efficiency and preference will be given to companies with strong technical and financial credentials.
- The State Govt. shall encourage de-centralized generation and distribution for remote and inaccessible areas where grid connectivity is either not feasible or not cost effective and the resources are available.
- The State Govt. shall encourage setting up of Captive power projects by the private sector/ public undertakings to augment the power supply. Open access shall be facilitated wherever necessary according to the provisions of the Act. Terms and conditions of this policy will be applicable to such captive power plants.
- In view of the need to generate fund for development of environmental and social sector, Cess per unit of the power generated will be charged for meeting each of the following social development costs:
    - Green cess @ 1paise per unit.
    - Education @ 1paise per unit
    - Health @ 1paise per unit
    - Sustainable development @ 1paise per unit, to be passed on to a Committee consisting of local people for the Project Affected Area and one nominee each from the Govt. and the Project developers.
- However, hydro projects below 25 MW will be exempted from payment of the cess.
- Employment to the locals should be given priority according to the terms and conditions as may be agreed upon provided that such terms and conditions ensure at least 80% employment for the bonafide residents of the State in the Group C & Group D post and preference for employment for bonafide residents of the State in other categories.
- The State Govt. shall encourage de-centralized generation and distribution for remote and inaccessible areas where grid connectivity is either not feasible or not cost effective and the resources are available.

3.1.2.6. POWER TRANSMISSION SECTOR

As the State of Meghalaya is facing an acute shortage of power due to the industrial load growth, the government has decided to establish a State Transmission Utility. The main objective of this utility is to engage in building, maintaining and operating an efficient, coordinated and economical transmission system within its territorial jurisdiction and shall be responsible for inter-connection arrangement between the generating company and distribution company/user. The Utility will prepare a comprehensive master plan for the state to cover five year periods. The Utility will also coordinate with Central Transmission Utility in the planning of inter-state transmission systems relating to the state. The State Government, in order to meet the growing demand, especially to achieve 100% rural electrification shall encourage investment by the private sector.

3.1.2.7. POWER DISTRIBUTION SECTOR

With a view to improve and introduce reforms in the distribution sector the Government of India launched the Accelerated Power Development Programme (APDP) during 2003 which was subsequently renamed as Accelerated Power Development Reforms Programme (APDRP) and is under implementation. The State Government in its commitment to electrify all villages and rural households by the end of the 11th Plan is looking at strengthening its power distribution system. This will be achieved through timely execution of all distribution schemes both in urban and rural areas and regular monitoring. Similarly revenue sustainability becomes a crucial factor in maintaining the infrastructure created. Electricity franchisee is a concept introduced to collect revenue from beneficiaries and reduce distribution loss in rural areas. 100% metering to all categories of consumers and all new connections have provision for being metered. Involvement of community, NGOs, village nodal person's et al would be ensured to make aware about conserving energy, making efficient and optimum use of energy.

RGGVY Transformer Installed in Tasku Village in Ri Bhoi District

RGGVY Transformer in Jyntah Village of East Khasi Hills District

3.1.3. ELECTRICITY POLICY

3.1.3.1. POWER POLICY

The National Electricity Policy is one of the key instruments for providing policy guidance to the Electricity Regulatory Commissions in discharge of their functions and to the Central Electricity Authority for preparation of the National Electricity Plan. The Policy aims at accelerated development of the power sector, providing supply of electricity to all areas and protecting interests of consumers and other stakeholders keeping in view availability of energy resources, technology available to exploit these resources, economics of generation using different resources, and energy security issues.

3.1.3.2. OBJECTIVES OF THE POLICY

a) Access to Electricity Available for all households in next five years.
b) Availability of Power Demand to be fully met by 2012. Energy and peaking shortages to be overcome and spinning reserve to be available.
c) Supply of Reliable and Quality Power of specified standards in an efficient manner and at reasonable rates.
d) Per capita availability of electricity to be increased to over 1000 units by 2012.
e) Minimum lifeline consumption of 1 unit/household/day as a merit good by year 2012.
f) Financial Turnaround and Commercial Viability of Electricity Sector.
g) Protection of consumer interests.

3.1.3.3. MAIN THRUST AREAS FOR RURAL ELECTRIFICATION IN THE NATIONAL ELECTRICITY POLICY

The National Electricity Policy lays down the approach for developing Rural Electrification distribution backbone and village electrification to achieve the target of completing household electrification in next five years as envisaged in the National Common Minimum Programme.

One of the key development objectives of the power sector is to supply electricity to all areas including rural areas as mandated in section 6 of the Electricity Act. Central and state governments would jointly envision, understand and implement to achieve this endeavour. Focus would be given to particularly those consumers who can afford to pay tariffs on electricity thereby ensuring 24/7 uninterrupted power supply. The poorest of the poor and the marginalized sections of the society would also have access to electricity within the next five years at nominal rates. A herculean task lies ahead within the policy as more than 56% of households are yet to be electrified.

The policy also envisages financial support in terms of capital subsidy to States for rural electrification and special preference to *Dalit Bastis*, Tribal Areas and other weaker sections for rural electrification.

One of the aims within the policy would be to recover the cost involved in capital so that electricity system will continue to function in a reliable manner. Hence mechanisms for payment of bills on time by beneficiaries would be crucial. Responsibility of operation & maintenance and cost recovery could be discharged by utilities through appropriate arrangements with Panchayats, local authorities, NGOs and other franchisees etc. (National Electricity Policy, 2005).

The policy also looks at generating power for agriculture and allied activities, KVIC, SMEs et al subsequently meeting the demand for employment generating activities. Education and awareness programmes would hold the key to generate demand for electricity and its many benefits including community participation.

Salient Features of Power Policy Objectives in the state of Meghalaya have been devised with due considerations for local felt needs. Meghalaya Power Policy has been formulated while keeping view of the national policy objectives:

- The government realizes that exploitation of hydro, thermal and non-conventional potential can make Meghalaya State one of the prosperous States in the country.
- The state realizes that one of the ways of doing this is by attracting private investment and adopting a BOOT mode.
- The aim of the state, on the line of national power policy is to provide adequate, reliable and quality power at competitive rates to the consumers.
- Meghalaya is deeply concerned about protecting the ownership and water usage rights of the poor people.
- The policy aims at addressing problems of maintaining ecological and environmental balance.
- Power sector of Meghalaya will look at generating additional employment and entrepreneurial opportunities for its people.

4. CHAPTER-IV

4.1. IMPLEMENTATION METHODOLOGY AND OPERATIONAL FRAMEWORK

4.1.1. OPERATIONAL FRAMEWORK

RGGVY scheme was launched in April 2005. The project was sanctioned in different years for different districts. For Jaintia Hills the project was sanctioned in September 2006 whereas for Garo (West and East) Hills district it was sanctioned only in March 2008. The groundwork for Jaintia Hills i.e. installation of infrastructure started only in October 2007.

Table 3 : *District wise dates for sanction of the project and Letter of Award (LOA)*

Name of the District/ Project	Sanction Date of the project	LOA Date
Ri Bhoi	21.11.06	16.07.07
Jaintia Hills	26.09.06	28.09.07
East Khasi Hills	06.03.08	09.06.08
West Khasi Hills	11.03.08	06.01.10
East Garo Hills	11.03.08	06.01.10
West Garo Hills	11.03.08	06.01.10
South Garo Hills	11.03.08	06.01.10

Source: Meghalaya Energy Corporation Limited, Short Round Road, Lum Jingshai, Shillong

For Ri Bhoi and Jaintia Hills the project was sanctioned at the end of 2006. The table below details the sanction dates for other districts (which was the first quarter of 2008). The implementation work i.e. lay down of infrastructure et al, started only after LOA was received in that district. Table 3 indicates the extent of delay.

4.1.2. IMPLEMENTATION METHODOLOGY

4.1.2.1. BENEFIT DELIVERY MECHANISM

Objective of the scheme is to provide electricity to the beneficiaries in the stipulated period of time. Under the scheme, turnkey contractors are involved to complete the project within this time. The contractors have been selected and engaged by the MeSEB. The turnkey contractors engaged sub-contractors for completion of work in a timely manner. As per the agreement with the Meghalaya State Electricity Board (MeSEB) the contractors have to install all the infrastructures in the selected (De-Electrified, Un-electrified and Electrified) villages. The contractors have to purchase all requisite materials as per specifications recommended by MeSEB. Contractors are mandated to cover two major works under the scheme. The first mandate is to create the infrastructure with the supply of materials and erection of works for villages to be included under the scheme. The second mandate is to complete all internal wiring for eligible BPL households.

As per the norms of electricity department, it is seen that infrastructures have been installed by the qualified and experienced persons engaged by the sub-contractors. The Executive

Engineers and SDOs have verified and monitored these works at village level. The internal wiring in BPL households has been done by qualified sub-contractors.

Conditions:

- Turn-key system found to be reasonably satisfactory.
- Raw materials should be supplied to the site directly.
- Appointment of more experienced technician by the turnkey contractor but approved by authority
- Better Monitoring of Turn-key system by Authority

4.1.2.2. SELECTION PROCESS OF VILLAGE AND BENEFICIARY

Three categories of villages: **un-electrified, de-electrified and electrified** have been proposed and subsequently covered to receive facilities under RGGVY scheme. These categories have been explained below:

NEW DEFINITION OF ELECTRIFIED VILLAGE BY GOVERNMENT OF INDIA

DEFINITION OF ELECTRIFIED VILLAGE

Prior to October 1997

A Village should be classified as electrified if electricity is being used within its revenue area for any purpose whatsoever.

After October 1997

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.

New definition of village electrification came into effect from 2004-05

(Issued by MOP, vide their letter No. 42/1/2001-D(RE) dated 5th February 2004 and its corrigendum vide letter no. 42/1/2001-D(RE) dated 17th February 2004.)

As per the new definition, a village would be declared as electrified, if:

1) Basic infrastructure such as Distribution Transformer and Distribution lines are provided in the inhabited locality as well as the Dalit Basti hamlet where it exists.

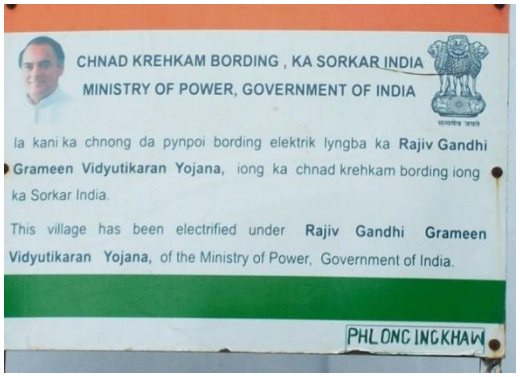
2) Electricity is provided to public places like Schools, Panchayat, Office,Health Centers, Dispensaries, Community centers etc.

3) The number of households electrified should be at least 10% of the total number of households in the village.

Electrified Villages: Electrified villages are those where electricity existed however this facility is to be extended to *hamlets/padas*. All these electrified villages that need electrification again (as per new capacity) have been covered under RGGVY with up to 25 Kilo Volt Amperes (KVA) transformer set up in each village.

Population explosion is the major cause for which electrified villages need electrification again. In some of the Census villages transformers are working at full capacity (i.e. there are more numbers of consumers as compared to the capacity of the transformer installed). This is the result of increase in the number of consumers and creation of new hamlets.

Sign Board in Tasku De-Electrified village under Umling Block of Ri Bhoi District



Sign Board in Plongingkhaw De-Electrified Village in Jaintia Hills District

Un-Electrified Villages: These villages have never been electrified under any scheme. Modernization and Globalization necessitates these villages to be covered under the RGGVY scheme to keep pace with the rest of the state and country.

De Electrified: There are some electrified villages which are now de-electrified. Prior to the scheme, there was electricity connection but now there is no electricity in these villages. The reasons for de-electrification are non availability of electric wire, non availability of electric pole and defunct transformer.

Mechanism of Selection Procedure: After introduction of the scheme, the State Electricity Board collected information about the villages and hamlets to be electrified, from three major sources; the distribution wing, the Block Development Offices, and from the villagers directly or through the local headman of the village. Distribution wings work at the grass root level in each district. They are mainly engaged in distribution of electricity, maintenance, repair, and service connection from the village level to district level. Distribution wings carry and maintain the list of electrified, un-electrified and also de-electrified villages. Village heads are contacted to identify the person whose name appears on the BPL list. A village can always contact the electricity department to get connection. In case of remote villages, information can be availed at block level.

After receiving the village list for eligible beneficiaries from different sources, a feasibility survey was conducted by the electricity department after collecting detailed information regarding the infrastructure requirement (transformer, electric pole, wire etc) for the surveyed villages. At the time of survey, BPL households were given priority. However APL households were also eligible to receive electric connection, but they would have to pay for it. APL households would have to follow application procedures and make a deposit for connection charge of Rs.2100.

BPL list 2002 which was notified by the GOM in August 2008 was used by contractors to connect electricity at eligible beneficiary household. The list was provided to the contractors by the MeSEB (Meghalaya State Electricity Board) after it was finalized by the Government of Meghalaya. Since the person assigned with the responsibility to provide connection in the village is not a local person, it was important to appoint a local person to identify the right BPL household. This assisted the efforts of the person in charge of providing connection. In the villages of the three districts, the village head (usually the local person) helps in identifying the true BPL household mentioned in the list. As per RGGVY scheme, after households receive electricity connection, the Gram Panchayat needs to certify that the village is electrified. The GP also needs to certify the percentage of beneficiary coverage through the scheme. As there are no Panchayats in Meghalaya, the village head takes the onus of reporting the coverage and other necessary obligations.

4.1.2.3. APPLICATION PROCESS AND BENEFIT DELIVERY MECHANISM

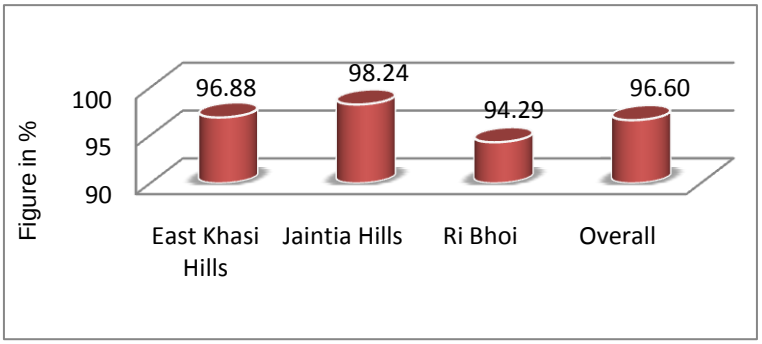
A BPL household need not have to go through any application process to avail its rightful free connection under the scheme. The contractor fills out all the requisite number of forms for the selected beneficiaries from the list. When he comes to the particular village he gets the beneficiary to sign the form (if the household can be identified with the help of the village head). The electric connection is then given by completing all the necessary internal wiring, electrical accessories. The entire process of application and connection is free for the BPL household. This system of identification and connection is pretty simple. However villagers feel that there is a drawback; that many of the BPL households have attained APL status owing to increase in household income during this time. Hence the new APL households get free connection and those APL households that have suddenly gone to BPL category are not included as eligible beneficiaries. Villagers feel that reducing the time taken between selection through electrification campaign and actual electrification can take care of such inconsistencies.

After all the connections are done, the contractor deposits the signed forms collected from the beneficiaries at the office of the Executive Engineer at district level. For an APL household to avail electricity connection, they have to fill out an application form with the fees and deposit the same in the electricity office.

4.1.2.4. TIME TAKEN TO GET BENEFIT

Contractors are engaged for installation of infrastructure. It takes nearly a month to set up infrastructure works so that an electrified village can get connection. For un-electrified or de-electrified villages this process takes nearly two months. There is no stipulated time limit for electrifying a particular village. All works including internal wiring of BPL households etc are done by the contractor/sub-contractor. In some villages/clusters it may take around three months to set up infrastructure works to get benefit depending on the number of households and the extent of infrastructure work.

Graph: 1 ***Sample Household Availed Electricity Connection under RGGVY in Schedule Time Period***



Source: DJRC Primary Survey for RGGVY, 2010

Ladmukhla village of Thadlaskein Block is an electrified village under Jaintia Hills district. In this village, all the required infrastructure have been installed in the month of April 2009 (08.04.2009) under the RGGVY scheme. However the village remains yet to be electrified, even after one and half years has passed. (The villagers hold REC and MeSEB responsible and say that lack of coordination between the two departments has led to this lapse.) Although the beneficiaries are eligible to get free connection, they do not have it yet. As a consequence they decided to pay the nominal charges (fees of Rs.5000 to Rs.8000) to get electricity connection. It is observed that currently most of the BPL households from this sample

Table 4 : ***Sample Household Availed Electricity Connection under RGGVY in Schedule Time Period***
(Figure in %)

District	% of Household
East Khasi Hills	96.88
Jaintia Hills	98.24
Ri Bhoi	94.29
Overall	96.60

Source: DJRC Primary Survey for RGGVY, 2010

Table 5 : ***Sample Household Availed Electricity Connection in Different Years***
(Figure in %)

District	Year 2008	Year 2009	Year 2010 (upto 15.10.2010)
East Khasi Hills	1.25	37.50	61.25
Jaintia Hills	5.71	86.43	7.86
Ri Bhoi	1.18	87.06	11.76
Overall	2.55	70.00	27.45

Source: DJRC Primary Survey for RGGVY, 2010

village have two meters, one through RGGVY scheme and another through general connection. The delay in getting free connection in this particular village has led villagers to take this drastic step.

As seen from the above sample table, that overall 96.60% of the households from sample villages visited have electricity connection.

Around 70% of sample beneficiaries received connection in the year 2008-09 and the rest received connection in 2010 (up to 15/10/2010).

4.1.2.5. REASONS FOR DELAY

RGGVY implementation has been much delayed in the state of Meghalaya. Five years have passed since the launch of RGGVY, but only three districts have witnessed the benefits of rural electrification. Implementation has taken place only in East Khasi Hills, Jaintia Hills and Ri Bhoi districts. The remaining four districts are a work-in progress, but no village has yet been electrified under the scheme. Many factors have led to the delay in implementing the scheme. Some of these factors are mentioned below:

Delay of Letter of Award (LOA): The scheme was launched on 4th April 2005 across India. However the project was sanctioned much later in different districts of Meghalaya. The LOA was received even later. The ground work, infrastructure works and implementation in the state started only after LOA was received in the particular district.

Table 6 : *Percentage Sample Households Electrified under RGGVY within Schedule Time Period*

District	% of Household
East Khasi Hills	96.88
Jaintia Hills	98.24
Ri Bhoi	94.29
Overall	96.60

Source: DJRC Primary Survey for RGGVY, 2010

Topography and Environment: Poor transport and logistics in the region add to the woes in implementing the scheme in a timely and effective manner. The problem exacerbates in remote villages that are away from towns. Installing any infrastructure has always been a challenge in this part of the country (rough topography) and the problem gets compounded in the rainy season when work has to stop for nearly six months in a year.

4.1.3. FRANCHISEE SYSTEM IN THE STATE

For covering cost and capital expenditure, management of rural distribution through franchisee is a prerequisite under Rajiv Gandhi Grameen Vidyutikaran Yojana. This will ensure revenue sustainability and help make profits to enable continuance of the electrification programme and its benefits. Franchisee is a separate entity (can be a NGO, village body, co-operative society or an individual entrepreneur) which is entrusted with the responsibility of collecting bills in a timely manner. This system has been introduced to ensure that beneficiaries pay their bills on time. The MeSEB will choose a franchisee

through a fair and open tender process. Franchisees are to be set up only after the process of installation of infrastructure and provision of electric connection to beneficiaries is complete.

After selection of franchisee, a contract agreement is drawn between the Chief Executive Officer, MeSEB and franchisee for an initial period of two years. This contract is subject to renewal at the end of two years if performance of franchisee remains satisfactory. The scope and nature of work, mode of bill payment, collection of arrears et al form a part of the contract agreement.

Challenge in Introducing the System: Out of three implemented districts, the franchisee system has been introduced only in 13 clusters of Jaintia Hills district. Seventy six villages have been covered so far under the franchisee system (refer Annexure 2 for a complete list of franchisee villages of Jaintia Hills).

Through discussions with various stakeholders it was found that there have been problems while introducing the system. The reason for the delay is franchisees are not happy with the payment terms and the nature of the agreement. They feel that the work is tedious and to collect dues and arrears they would need to recruit more people than the mandate (usually three). This adds to their cost and reduces the profit margin substantially. Agencies are not willing to act as franchisee at a very low margin. The state needs to re-evaluate its stance on payment terms to franchisee to persuade them to take this charge. The major areas for considerations are:

- All the electrified villages should be covered under the franchisee system under RGGVY.
- The scattered villages should be included in nearby clusters in a planned way.
- The Franchisee should train a person from the scattered village and recruit in that village for service and collection of payments.
- Review Franchisee contract to make it easy for parties

4.1.4. Monitoring and Supervision Mechanism

4.1.4.1. MONITORING COMMITTEE

Monitoring Committee at National Level: The Monitoring Committee constituted by the Ministry of Power under the Chairmanship of Secretary (Power), Government of India sanctions the projects, including revised cost estimates. The committee also monitors and reviews the progress reports on scheme implementation. If required it reviews and improvises necessary guidelines from time to time for effective implementation of the scheme.

Monitoring Committee at State Level: At state level, the Chief Engineer and Superintendent Engineer monitor the work done by Executive Engineers in the districts. The committee reviews and discusses their progress based on reports submitted to them. If any case needs their specific involvement then they visit the area to resolve the issue. The executive engineers look up to the committee for guidance if required.

Monitoring Committee at District Level: At district level, the Executive Engineers and SDOs frequently visit to monitor the progress of work specifically ground work for infrastructure and installations. At the time of installation of transformer in the villages, contractors and sub-contractors are advised of the *modus operandi*. During implementation of the scheme, officials usually make trips to ensure that the work is being carried out smoothly and give their suggestions and inputs for better implementation. In blocks, the JEs (Junior Engineers) are involved in monitoring work progress.

4.1.4.2. ROLE AND RESPONSIBILITIES OF EACH LEVEL TIER

Role and Responsibility of Each Level Tier: For the scheme to operate smoothly three tiers of quality control mechanism has been put in place. Although all tiers have the same objective (of enrolling BPL households for free electric connection), each tier has its exclusive responsibility.

First Tier: Project implementing agency (PIA) and third party inspection agency engaged by the PIA is the first tier of the Quality Control Structure, whose responsibility is to ensure that all the materials to be utilized and the workmanship confirm to the prescribed specifications. This inspection is necessary as it has to synchronize with phased release of funds under RGGVY. Inspection and proof of corrective action are mandatory requirements for subsequent fund release. This inspection covers approximately 100% of villages for each project.

Second Tier: Rural Electrification Corporation becomes responsible to control quality in the second tier. REC gets inspection of works/materials done through its non-field staff and by outsourcing the responsibility. REC may outsource the inspection works to retired employees of State Electricity Boards/State Utilities/CPSUs. These individuals appointed to do quality inspections are designated as REC Quality Monitors (RQM). All reports submitted by RQMs are organized and analyzed for further action/corrective action by REC. The inspection will cover quality checks at pre-shipment stage at vendors' outlet for major materials. Usually 10% of villages are selected on random sample basis to carry out inspection works.

Three Tier: Independent Evaluators (Individuals/Agency) are engaged by the Ministry of Power for evaluation (from time to time) of supply of materials and erection works. These evaluators are designated as National Quality Monitors (NQM). It is the state's responsibility to facilitate the inspection of works by the NQM, who shall be given free access to all administrative, technical and financial records. Evaluation usually covers 1% of the villages. NQMs also report on the general functioning of the Quality Control Mechanism in the District.

The existing three-tier monitoring system should continue but faster decision making should be ensured. Up to 2%-3% randomly selected sample villages may be visited by independent evaluators.

4.1.4.3. EFFECTIVENESS AT VARIOUS LEVEL

The third tier inspection is done from time to time. It is the first and second tier that forms the crux of the quality control mechanism. After speaking with stakeholders it appears that once LOA is received in a district, the works start. However the challenge is always in construction and ground work. As the topography poses a constraint it is often difficult to carry out this work. The officials are however always enthusiastic in fulfilling the objectives of the scheme. There is usually no problem in coordination and cooperation.

For the quality Control Mechanism, a team of five members has been organized for proper monitoring and implementation of the scheme. Project Quality Control Committee (PGCC) has been formed for monitoring activities of the three tiers. In PQCC, Additional Chief Engineer is the chairman and Chief Executive Engineer and Executive Engineers are members. Through monitoring effective quality control is ensured. Major and minor field works are inspected such as procurement of materials, transportation and delivery and verification of items at the time of installation.

4.1.4.4. EFFECTIVENESS OF FIRST TIER QUALITY MONITORING MECHANISM:

Project Implementing Agency is responsible for Quality Control Structure in the first tier. Once LOA is received, approved contractors procure materials from recommended companies. The procured items are then inspected by the Project Implementing Agency. Executive Engineers carry out this Inspection known as pre-dispatch inspection. Verification is done by executive engineers again when materials are received at the storage/warehouse. 30% to 40% villages are covered for verification of materials and monitoring contractor activity. If any duplicate materials or wrong items are found then they are returned.

4.1.4.5. EFFECTIVENESS OF SECOND TIER QUALITY MONITORING MECHANISM:

On the field, materials are checked by engineers. For this tier of quality control, 10% of the villages covered through the scheme are selected for verification. If any issues are found at this tier they are brought to the notice of REC. During field verification, suggestions are always given to contractors in charge of installations regarding power requirements in the village.

4.1.4.6. RECORD KEEPING

At state level, all the records are kept district wise. Consolidated figures for the state are maintained as well. The district officials send monthly progress report to the state office regarding physical and financial progress of the work. The number of BPL households covered in electrified, de-electrified and un-electrified villages is reported. The amount spent on electrification at district, block and village level can be tracked through progress report. Once all the information is collected it will be entered on the website of MeSEB.

4.1.4.7. WEB BASED MONITORING SYSTEM

Web based monitoring system for RGGVY has been designed at national level. The system has been set up to retrieve progress status for RGGVY implementation in all states at any time. This website (http://rggvy.gov.in) carries status report of electrification in any state. The information is updated monthly by the MeSEB on their website after receiving the progress reports from the districts.

4.1.5. TARGET AND ACHIEVEMENT UNDER DIFFERENT COMPONENTS: PHYSICAL AND FINANCIAL

4.1.5.1. ASSESSMENT OF PHYSICAL TARGET AND ACHIEVEMENT

Physical targets are set for all districts but achievement figures are only available for three districts; Jaintia Hills, Ri Bhoi and East Khasi Hills. This is because RGGVY scheme has

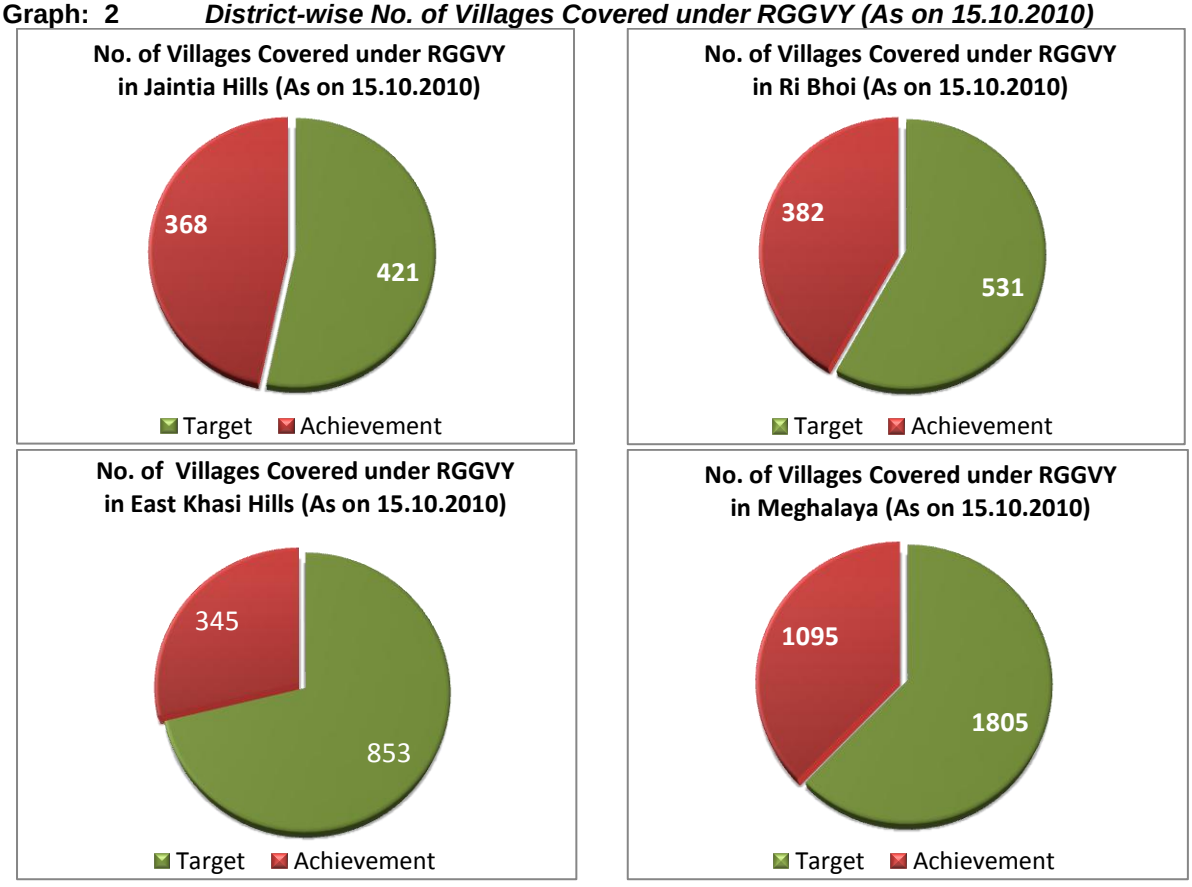
been implemented only in these three districts of Meghalaya. As per table 7, in Jaintia Hills more than 87% of villages are electrified in all three categories. This is very high compared with the latest state average of 60.66%.

Table 7 : *District wise Village Electrification Status (As on 15.10.2010)*

Name of the District	Number of Villages Electrified											
	Un Electrified			De Electrified			Electrified			All category		
	T	A	%	T	A	%	T	A	%	T	A	%
Jaintia Hills	11	9	81.82	50	50	100.00	360	309	85.83	421	368	87.41
Ri Bhoi	74	37	50.00	34	33	97.06	423	312	73.76	531	382	71.94
East Khasi Hills	0	0	0.00	19	19	100.00	834	326	39.09	853	345	40.45
Total	85	46	54.12	103	102	99.03	1617	947	58.57	1805	1095	60.66

Source: Executive Engineers of Respective Districts
T: Target for electrification, A: Achievement – Actual electrification

Graph: 2 ***District-wise No. of Villages Covered under RGGVY (As on 15.10.2010)***



Source: Executive Engineers of Respective Districts

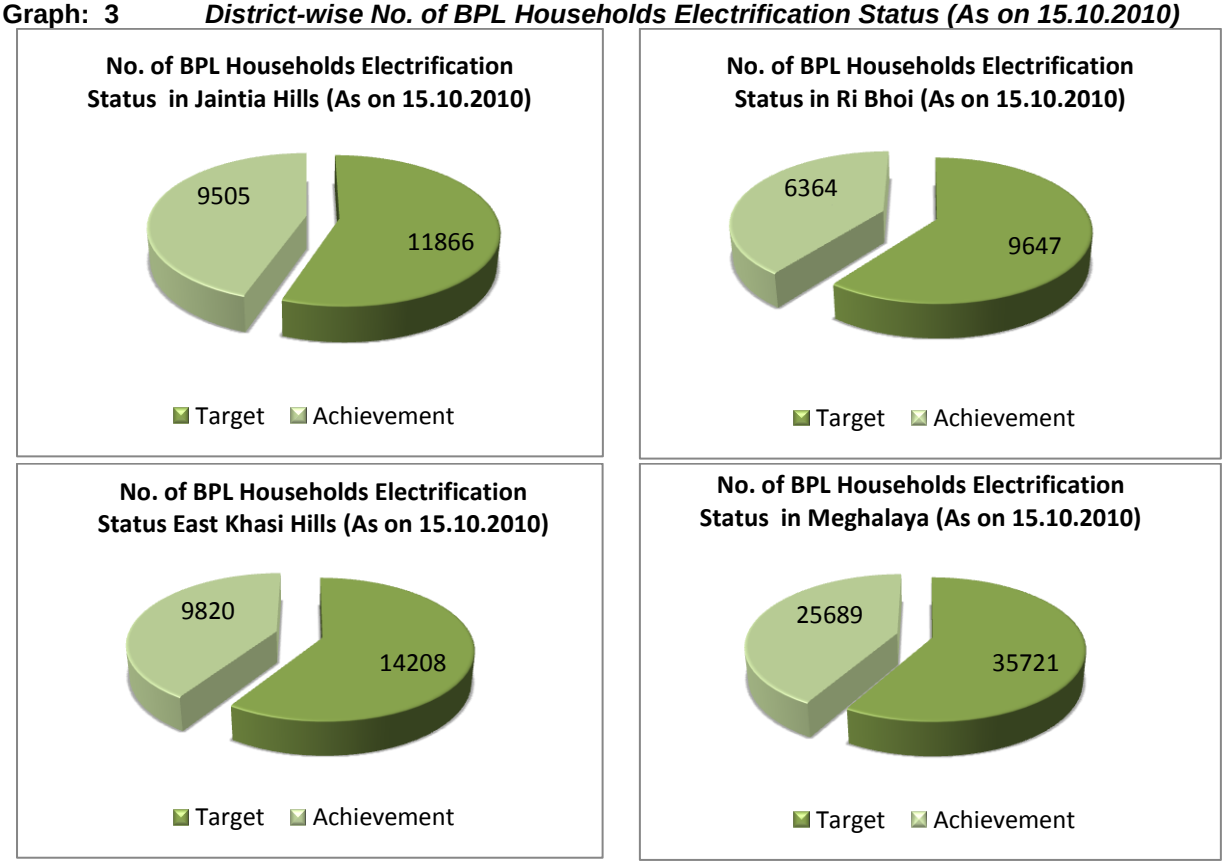
Table 8 : *BPL Households Electrification Status (As on 15.10.2010)*

Name of the District	Number of BPL households Electrified		
	Target	Achievement	Achievement (%)
Jaintia Hills	11866	9505	80.10
Ri Bhoi	9647	6364	65.97
East Khasi Hills	14208	9820	69.12
Total	35721	25689	71.92

Source: Executive Engineers of Respective Districts

In BPL category Jaintia Hills leads the other two districts. This is mainly due to delay in starting of infrastructure work in the other two districts. Considering the reasons for delay all districts are doing quite well in this category and stakeholders feel that they would be able to meet their targets soon.

Graph: 3 ***District-wise No. of BPL Households Electrification Status (As on 15.10.2010)***



Source: Executive Engineers of Respective Districts

The tables 9-14 show block-wise physical target and achievement, number of villages and number of BPL households electrified for all three districts. This provides a crisp view of the status of RGGVY progress.

4.1.5.1.1. JAINTIA HILLS DISTRICT

Table 9 : ***Block-wise Village Electrification Status Under RGGVY in Jaintia Hills***

Blocks	Un Electrified			De Electrified			Electrified			All category		
	T	A	%	T	A	%	T	A	%	T	A	%
Thadlaskein	2	1	50.00	18	18	100	96	85	88.54	116	104	89.66
Laskein	2	2	100	7	7	100	59	54	91.53	68	63	92.65
Amlarem	1	1	100	8	8	100	72	66	91.67	81	75	92.59
Khliehriat	6	5	83.33	17	17	100	133	104	78.20	156	126	80.77
Total	11	9	81.82	50	50	100	360	309	85.83	421	368	87.41

Source: Executive Engineer, R.E. Construction Division, Me. E.C.L., Jowai
T: Target, A: Achievement

Table 10 : *Block-wise BPL Household Covered Under RGGVY in Jaintia Hills*			
Blocks	No. of BPL HH To be Covered	No. of BPL HH Covered	% of BPL HH Covered
Thadlaskein	4432	3269	73.76
Laskein	2391	2043	85.45
Amlarem	1953	1708	87.46
Khliehriat	3090	2485	80.42
Total	11866	9505	80.10
Source: Executive Engineer, R.E. Construction Division, Me. E.C.L., Jowai			

4.1.5.1.2. RI BHOI DISTRICT

Table 11 : *Block-wise Village Electrification Status Under RGGVY in Ri Bhoi*												
Blocks	Un Electrified			De Electrified			Electrified			All category		
	T	A	%	T	A	%	T	A	%	T	A	%
Umling	28	10	35.71	21	20	95.24	188	126	67.02	237	156	65.82
Umsning	46	27	58.70	13	13	100	235	186	79.15	294	226	76.87
Total	74	37	50.00	34	33	97.06	423	312	73.76	531	382	71.94
Source: Executive Engineer, R.E. Construction Division, Me. E.C.L., Jowai T: Target, A: Achievement												

Table 12 : *Block-wise BPL Household Covered Under RGGVY in Ri Bhoi*			
Blocks	No. of BPL HH To be Covered	No. of BPL HH Covered	% of BPL HH Covered
Umling	4151	2299	55.38
Umsning	9647	6364	65.97
Total	13798	8663	62.78
Source: Executive Engineer, R.E. Construction Division, Me. E.C.L., Jowai			

4.1.5.1.3. EAST KHASI HILLS DISTRICT

Table 13 : *Block-wise Village Electrification Status Under RGGVY in East Khasi Hills*												
Blocks	Un Electrified			De Electrified			Electrified			All category		
	T	A	%	T	A	%	T	A	%	T	A	%
Mawphlang	0	0	0	0	0	0	207	112	54.11	207	112	54.11
Mylliem	0	0	0	0	0	0	88	33	37.50	88	33	37.50
Mawryngkneng	0	0	0	5	5	100	56	31	55.36	61	36	59.02
Mawkynrew	0	0	0	0	0	0	66	29	43.94	66	29	43.94
Mawsynram	0	0	0	13	13	100	132	40	30.30	145	53	36.55
Shella-Bholagarj	0	0	0	0	0	0	158	55	34.81	158	55	34.81
Pynursla	0	0	0	1	1	100	127	26	20.47	128	27	21.09
Total	0	0	0	19	19	100	834	326	39.09	853	345	40.45
Source: Executive Engineer, R.E. Construction Division, Me. E.C.L., Jowai T: Target, A: Achievement												

Table 14 : *Block-wise No. of BPL Household Covered Under RGGVY in East Khasi Hills*			
Blocks	No. of BPL HH To be Covered	No. of BPL HH Covered	% of BPL HH Covered
Mawphlang	3261	2581	79.15
Mylliem	1021	895	87.66
Mawryngkneng	1760	1390	78.98
Mawkynrew	1922	1603	83.40

Table 14 : *Block-wise No. of BPL Household Covered Under RGGVY in East Khasi Hills*			
Blocks	No. of BPL HH To be Covered	No. of BPL HH Covered	% of BPL HH Covered
Mawsynram	2301	1633	70.97
Shella-Bholagarj	1995	992	49.72
Pynursla	1948	726	37.27
Total	14208	9820	69.12
Source: Executive Engineer, R.E. Construction Division, Me. E.C.L., Jowai			

4.1.5.2. FINANCIAL DEVOLUTION AND FINANCIAL ACHIEVEMENTS

As it is a Centrally Sponsored Scheme, to implement it 90% grant is provided from the Government of India. Government of India releases fund to the Chief Account Officer in a separate bank account which on requisition is released the same to the Executive Engineers for payment to the turnkey contractors through RTGS. The entire project cost is released in four phases such as 3:3:3:1.

In the first phase contractors are provided 30% of the project cost. When Utilization Certificate for 80% or more (of the 30% of the total project cost) is submitted to the Executive Engineer, then the contractor is eligible to get the fund release for the second phase. This process continues up to 90% of the fund release; in three phases. Once 90% utilization certificate is received from the turnkey contractor, the final 10% fund is released by the Executive Engineer. This is the usual pattern for project cost realization and utilization of funds set for RGGVY scheme.

4.1.5.3. RGGVY DISTRICT-WISE FINANCIAL ACHIEVEMENTS AS BELOW

Table 15 : *RGGVY financial Achievement (As on September 2010)*				
District	**Sanctioned Cost (Rs. in lakh)**	**Amount Received (Rs. in lakh)**	**Expenditure (Rs. in lakh)**	**% of Expenditure**
Jaintia Hills	3532.35	2387.14	2386.44	99.97
Ri Bhoi	2104.05	1893.63	1317.33	69.57
East Khasi Hills	2038.64	1734.15	1145.20	66.04
Source: Executive Engineer, R.E. Construction Division, Me. E.C.L. Shillong				

4.1.5.4. YEAR WISE PROGRESS OF KEY TARGETS AND ACHIEVEMENT

As the project has been recently implemented, the final status of target vs. achievement is mentioned in the above tables. Each block within the three districts where implementation has taken place has a target. The achievements in these districts have been shown in tables 9, 10, 11, 12, 13, and 14. Financial achievement is detailed in table 15.

4.1.5.5. ACCESS TO ELECTRICITY TO ALL RURAL HOUSEHOLDS

The objective of the scheme was to electrify all the rural households within the time period. Only BPL households were targeted to be included for free connection through RGGVY.

Table 16 : *Percentages of Economic Category of Sample Household*

District	APL	BPL
East Khasi Hills	1.25	98.75
Jaintia Hills	0.71	99.29
Ri Bhoi	2.94	97.06
Overall	1.70	98.30

Source: DJRC Primary Survey for RGGVY, 2010

However APL households can avail the facility by paying connection fees. They would have to fill out the application and submit the same with the fees to receive connection. Many APL households are connected under the scheme. From the sample it is found that overall 98% of households surveyed were BPL and the rest APL. Since one of the main objectives was to reach out to the poor and backward classes, it was important to understand their viewpoint of the scheme and its implications. Many APL households surveyed had applied and received general connection before RGGVY implementation. Some had to wait for RGGVY to bring this benefit to their village and hence received connection after paying the fees.

4.1.5.6. HOUSEHOLD ELECTRIFIED IN THE SAMPLE VILLAGES

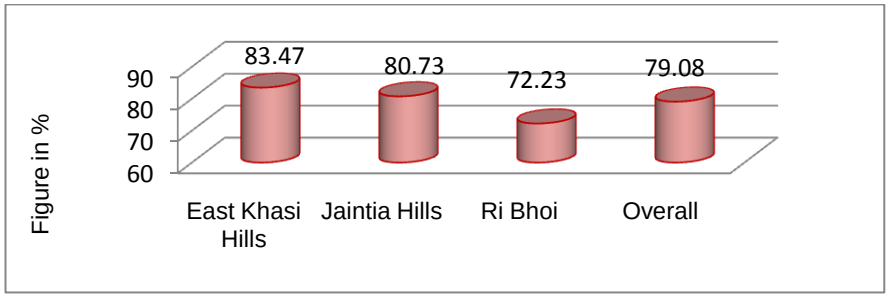
Household electrification work has been completed in small villages or hamlets in the first phase. In case of larger villages, all households are not yet covered through the scheme. It is found from sample village list that BPL households concentrated in a cluster receive priority for electrification. If BPL households are closer to the electric poll then it is easier to cover them first. Remaining households are covered in subsequent phases. Out of 2883 BPL households, 79.08% households have been electrified through RGGVY.

Table 17 : *BPL Household in Sample Villages*

District	No. of Households in Sample Villages	No. of BPL households in Sample Villages	% of BPL households in Sample Villages
East Khasi Hills	2113	938	44.39
Jaintia Hills	2093	785	37.51
Ri Bhoi	2813	1160	41.24
Overall	7019	2883	41.07

Source: DJRC Primary Survey for RGGVY, 2010

Graph: 4 ***Percentage of Sample Households Electrified under RGGVY***



Source: DJRC Primary Survey for RGGVY, 2010

Table 18 : *Percentage of Sample Household Electrified under RGGVY*

District	% of Household
East Khasi Hills	83.47
Jaintia Hills	80.73
Ri Bhoi	72.23
Overall	79.08

Source: DJRC Primary Survey for RGGVY, 2010

4.1.5.7. VILLAGE HAVING TRANSFORMER

Every village covered under RGGVY scheme has a transformer of various capacities; 10KVA, 16KVA and 25KVA. According to MeSEB there is no village that has been covered under RGGVY that does not have a transformer. The type of transformer installed in a village is largely dependent on the capacity and load which is again dependant on the number of households in the village or hamlet. In small hamlets, 10KVA transformers are also seen which suffices for fewer households. Mostly 16KVA and 25KVA transformers have been found in the sample villagers. From sample villages, 41 (87%) have 25 KVA transformers and 6 (13%) 16KVA or below capacity transformers.

Table 19 : *Percentage Specific Types of Transformers in Sample Districts found in Sample Villages*

District	Types Transformer & Capacity of Transformers	
	16 KVA and Below	25 KVA
East Khasi Hills	12.50	87.50
Jaintia Hills	14.29	85.71
Ri Bhoi	11.76	88.24
Overall	12.77	87.23

Source: DJRC Primary Survey for RGGVY, 2010

In some villages there are more than two transformers and both have 25KVA capacity. A franchisee village (electrified), Ummulong of Thadlaskein block in Jaintia Hills has three 25KVA transformers. In Nongdewsaw village (de-electrified) of Umsning block in Ri Bhoi district, two transformers (25KVA and 10KVA) are seen. In village Saipung (de-electrified) of Khliehriat block in Jaintia Hills, there are three transformers (Two 25KVA transformers and one 16KVA). These have been installed as per requirement or to meet extra capacity. Some

transformers were installed prior to RGGVY. The amount of electricity consumption also varies in any village. District wise (from sample villages) installations of transformers are shown in table 20. The capacity of transformers in each sample village and load type has been mentioned in the same table. There is a need for proper survey to be carried out for accurate forecast of beneficiaries to be covered and energy requirement in villages. This will help in providing electricity to all in a village and will also create capacity for any future demand (additional households if any). Infrastructure should be laid such that any future demand for energy requirements can also be met. Everyone in the village should have adequate power with proper voltage. An overloaded transformer will not meet the demands of all consumers and will also not supply adequate power leading to low voltage.

Table 20 : *Capacity of Transformers in Sample Villages*

District	Block	Village	Village Category	No. of transformers used in village	Capacity of Transformer	Load Type
Ri Bhoi	Umling	Tasku	De Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umling	Patharkhmah	Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umling	Wahsynnoh Nongdom	Un Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umling	Umlakro	Electrified	One	25 KVA	Need another transformer
Ri Bhoi	Umling	Nongbirthem Mawtamur	De Electrified	One	25 KVA	
Ri Bhoi	Umling	Pahambirlum	Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umling	Korbalu	Un Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umling	Sohkyrbam Domphlang	Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umsning	Nongdewsaw	De Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umsning	Umeit	Electrified	One	16 KVA	At Capacity
Ri Bhoi	Umsning	Thadnongiaw	Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umsning	Mawlasnai	Electrified	One	25 KVA	Need another transformer
Ri Bhoi	Umsning	Umpohwin	Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umsning	Sohliya	Electrified	One	25 KVA	At Capacity
Ri Bhoi	Umsning	Klew	Electrified	Two	25 KVA X2	At Capacity
Ri Bhoi	Umsning	Mawbsein	Electrified	Four	25 KVA X3 and 10 KVA	At Capacity
Ri Bhoi	Umsning	Mawdwar	Electrified	One	16 KVA	At Capacity
East Khasi Hills	Mylliem	12th Mile	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mylliem	Pomkaniew	Electrified	One	25 KVA	Need another transformer
East Khasi Hills	Mylliem	Baniun	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mylliem	Umlympung	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mylliem	Mawwan	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mawphlang	Mawrengeast	Electrified	One	25 KVA	At Capacity
East Khasi	Mawphlang	Kharnongwah	Electrified	One	25 KVA	At Capacity

Table 20 : *Capacity of Transformers in Sample Villages*

District	Block	Village	Village Category	No. of transformers used in village	Capacity of Transformer	Load Type
Hills						
East Khasi Hills	Mawphlang	Mawkohtep	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mawryngkneng	Ryngksaw	Un Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mawryngkneng	Jyntah	Electrified	Two	25 KVA & 16 KVA	At Capacity
East Khasi Hills	Mawryngkneng	Pomlahier (Iapshyndiet)	Electrified	One	25 KVA	Need another transformer
East Khasi Hills	Mawryngkneng	Ksehpongdeng	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mawsynram	Laitmawsiang	Electrified	One	25 KVA	Need another transformer
East Khasi Hills	Mawsynram	Kyrphei	Electrified	One	25 KVA	
East Khasi Hills	Mawsynram	Pongkung	Electrified	One	25 KVA	At Capacity
East Khasi Hills	Mawsynram	Rajamraja	DE Electrified	One	25 KVA	At Capacity
Jaintia Hills	Thadlaskein	Ladmukhla	Electrified	Two	25 KVA and 16 KVA	At Capacity
Jaintia Hills	Thadlaskein	Lumkhudung	De Electrified	One	25 KVA	At Capacity
Jaintia Hills	Thadlaskein	Plongingkhaw	De Electrified	Two	25 KVA X2	Need another transformer
Jaintia Hills	Thadlaskein	Ummulong	Electrified	Three	25 KVA X3	At Capacity
Jaintia Hills	Thadlaskein	Maskut	Un Electrified	One	25 KVA	At Capacity
Jaintia Hills	Khliehriat	Pamrakmai	Electrified	One	25 KVA	At Capacity
Jaintia Hills	Khliehriat	Saipung	De Electrified	Two	25 KVA X2	At Capacity
Jaintia Hills	Khliehriat	Daistong	De Electrified	Two	25 KVA X2	At Capacity
Jaintia Hills	Khliehriat	Lumthari	Electrified	One	25 KVA	At Capacity
Jaintia Hills	Khliehriat	Tuberkmaishnong	Electrified	Two	25 KVA X2	At Capacity
Jaintia Hills	Laskein	Tumtum	De Electrified	One	25 KVA	At Capacity
Jaintia Hills	Laskein	Madanrwan	Electrified	One	25 KVA	At Capacity
Jaintia Hills	Laskein	Sahsniang	Electrified	Three	25 KVA X2 and 16 KVA	At Capacity
Jaintia Hills	Laskein	Nongkynrih	Electrified	Two	25 KVA X2	At Capacity

Source: DJRC Primary Survey, 2010

It was observed that even at low level of connection, numbers of sample village transformers are already at capacity indicating that further connection in these villages is not possible without installing additional transformers. To meet up the increasing load demand, the DTs in the villages will have to augment from time to time.

4.1.5.8. FREE ELECTRIC CONNECTION TO BPL HOUSEHOLDS

RGGVY scheme states that all BPL households should receive free electricity connection. From the three implemented districts of Meghalaya, 71.92% BPL households have been

electrified as on 15.10.2010. From the primary analysis, it is found that 70.91% households have been electrified, from the sample villages. Work could have progressed much faster but for the delay in receipt of LOA and other constraints, discussed later.

4.1.5.9. ELIGIBLE BPL HOUSEHOLD NOT YET ELECTRIFIED

For the entire state, BPL households are targeted, to be electrified through RGGVY scheme. As per available information, 28.08% BPL households are not yet electrified in the three implemented districts. In the second phase of implementation these households will be electrified.

Table 21 : *Eligible BPL Households not Electrified (As on 15.10.2010)*

Name of the District	Number of BPL households to be Electrified			
	Total BPL households	Electrified households	Households not electrified	% of BPL household not electrified
Jaintia Hills	11866	9505	2361	19.90
Ri Bhoi	9647	6364	3283	34.03
East Khasi Hills	14208	9820	4388	30.88
Total	35721	25689	10032	28.08

Source: Executive Engineers of Respective Districts

Electric Meters Installed Under RGGVY Scheme

Mawwan Village of Mylliem Block

Mawbsein Village of Umsning Block

5. CHAPTER-V

5.1. IMPACT ASSESSMENT

5.1.1. IMPACT ASSESSMENT OF VILLAGES/HOUSEHOLDS COVERED THROUGH RGGVY - A CRITICAL ANALYSIS OF SAMPLE

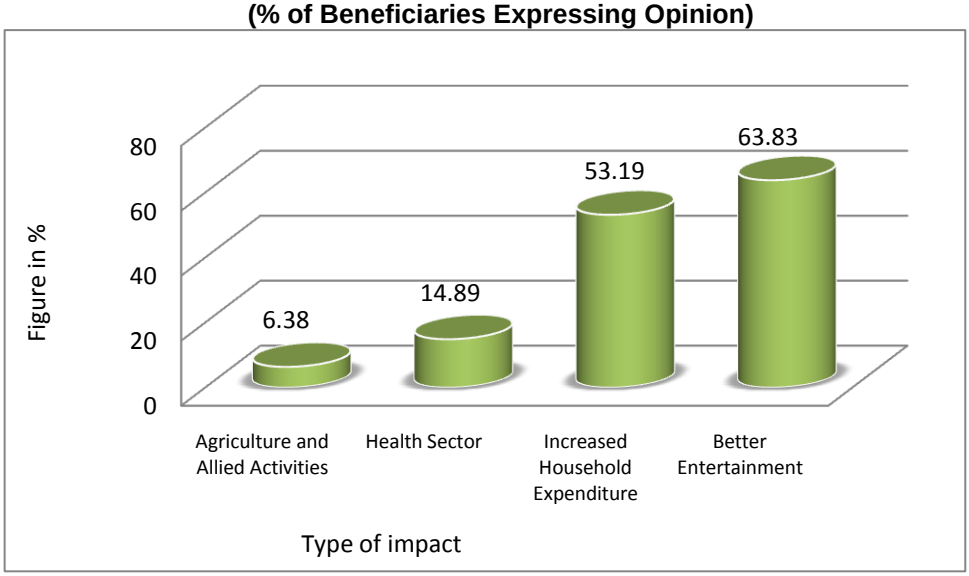
There are many tangible and intangible benefits provided with RGGVY programme implementation in the state. Those households that have not yet received electricity connection are feeling the ripple effects of the programme implementation in nearby households or villages. As per RGGVY all households have to be electrified and all BPL households are to receive free BPL connection. After scheme implementation in the state, people are able to see the difference between “haves” and “have-nots”. As understood many households and even villages have lived in darkness for ages. It has been an arduous task to implement the scheme owing to several factors. One of the main reasons for the challenge was a difficult and mountainous terrain, where many remote villages are still not covered.

Electrification of villages amongst other benefits has impacted positive externalities, impacting the non beneficiaries as well (refer graph 5 and table 23 for impact of RGGVY). For example at the time of village functions or religious festivities, all households can enjoy light, sound and fan. 63.83% of households from the sample villages find better source of entertainment and information by watching TV. People have mobile phone connectivity which was not available before. With mobile phone connectivity there is better connection with outside world. People are no longer dependant on using a landline/STD booth to go and make a call. They even have fun playing games on mobile phone or listening to radio/music on their phones. Village level functions are better lit and more enjoyable now. With electricity, 53.19% households feel that expenditure or entertainment and other important events have increased. They feel happier spending their money on non-food items as well. 14.89% sample households feel that electricity has impacted their health and hygiene positively. TV has been a mega source in mass education on the benefits of safe health and hygiene habits. Access to TV has opened up a whole new world to information which was not available before. TV educates the masses on better farm (better seed/pest management/organic options) practices and locally made cheaper options for many agriculture inputs (agriculture being a large source of income in the rural areas).

From sample analysis (refer table 22) it is found that most beneficiaries are dependent on agriculture as their main source of livelihood. Some beneficiaries, who do not own or lease land, work as labour in agriculture and allied activities. There are others who work only as labour in various activities and are paid wage the days that they work for.

Table 22 : *Percentage of Sample Households Involved in Various Occupations (%)*					
District	Agriculture and Allied Activities	Agriculture Labourer	Other Labourer	Petty/Small Business	Other Occupation
East Khasi Hills	29.38	27.50	35.00	5.63	2.50
Jaintia Hills	40.00	31.43	25.71	2.86	0.00
Ri Bhoi	48.82	27.06	18.82	2.35	2.94
Overall	39.57	28.51	26.38	3.62	1.91
Source: DJRC Primary Survey for RGGVY, 2010					

Graph: 5 ***Impact of RGGVY in Sample Villages of Meghalaya***
(% of Beneficiaries Expressing Opinion)



Source: DJRC Primary Survey for RGGVY, 2010

Table 23 : *Positive Impact of RGGVY in Sample Villages on Various Activities* (% of beneficiaries expressing opinion)				
District	Agriculture and Allied Activities	Health Sector	Increased Household Expenditure	Better Entertainment than before
East Khasi Hills	6.25	18.75	56.25	62.50
Jaintia Hills	7.14	14.29	50.00	64.29
Ri Bhoi	5.88	11.76	52.94	64.71
Overall	6.38	14.89	53.19	63.83
Source: DJRC Primary Survey for RGGVY, 2010 % indicates the survey done with beneficiaries				

RGGVY Benificiaries Use Sattelite TVs (DTH) in Mawwan Village of Mylliem Block under East Khasi Hills District

WILL Phone Connection in Sohkyrbam Domphlang village in Umling Block

Drinking Water in Sohkyrbam Domphlang Village in Umling Block

Beneficiary of Saipung Village using bulb under RGGVY

5.1.2. IMPACT ON EMPLOYMENT

The issue of employment is directly or indirectly related to many schemes. Among RGGVY's broad objective, one of the important one was to enhance employment capability by providing additional sources of power in the agriculture, allied and industries sectors. Planning has not yet integrated development activities to take advantage of RGGV.

The number of working days in a year has not changed much with electrification of sample villages. However the number of working hours per day has increased for most households that are poor and were always looking to find ways of additional employment. A blacksmith is able to put in more hours of work from home while economizing his other electricity needs. Same goes for an agriculturist who is skilled in artisanship e.g. bamboo craft, weaving etc. These poor people are able to do additional work on an average 2-3 hours in a day which provides them with additional income in the month. During lean agriculture season they continue with their side businesses or artisanship due to which they do not face economic hardships as they did before.

Women who are mostly involved in household activities can work in comfort (as they can see better with a light bulb) in occupations such as tailoring, embroidery, woollen work. Although they use some of the items personally, when the occasion arises they go ahead to the markets to sell them, which fetches them additional income. Women are happy as they can now spend money for purchase of personal items.

ELECTRICITY IN THE VILLAGE PROMPTS OWNER TO SHIFT TO ELECTRIC POWER FOR COMMERCIAL USE

District: Ri Bhoi

Tasku village has 65 households. The village was covered under RGGVY scheme in February, 2009. All families belong to Scheduled Tribes. In this village 43 households are electrified, out of which 33 BPL families have been covered through RGGVY. Mrs. Sholly Retun's household is one of RGGVY beneficiaries. She got free connection with a meter board and other free accessories. She lives with her husband, 3 daughters and 2 sons. In Tasku village there is only one rice mill which she owns and operates. The rice mill runs on diesel power and most villagers depend on the mill for income. She realizes the heavy cost (transport, wear and tear etc.) of running the mill on diesel. Electricity in the village has prompted her to look at operating the mill with electricity. She has submitted an application for a commercial connection.

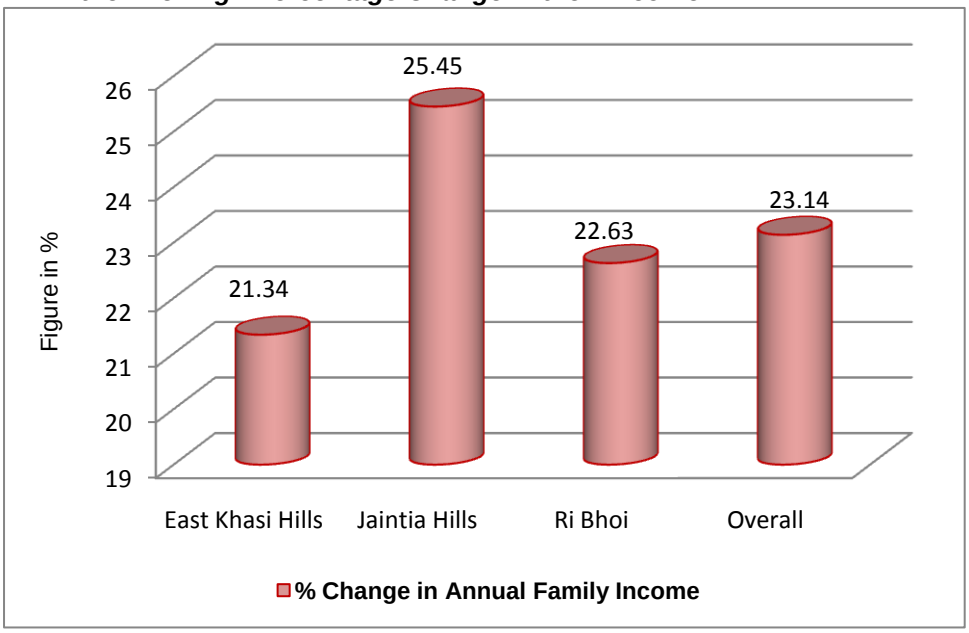
Mrs. Sholly Retun with her baby in her rice mill

5.1.3. IMPACT ON INCOME

Income is related to many schemes implemented by the Government. Under RGGVY scheme, there is only provision for one bulb. There is no provision for any commercial use of electricity either in their household activities or on their firm. It is observed that beneficiaries

now get additional hours at night for doing value addition to pursue any alternate vocation/skill which fetches them additional income. These vocations vary in nature such as weaving/artistry/bamboo craft/tailoring/ etc. Work is generally carried out at its own pace. Since this provides them additional money, most are enthusiastic in improving their living standard. Most people who work in alternate vocations during evening feel that a light bulb in the house provides them a chance to earn roughly 20% - 25% increase in monthly income (refer table 24 and graph 6 to see sample household views on change in income). This is a significant contribution to the family income which would have never been possible if RGGVY had not provided free electricity connection to BPL families.

Graph: 6 ***Views of the Sample Households Working Additional Hours in the Evening - Percentage Change in their Income***



Source: DJRC Primary Survey for RGGVY, 2010

Table 24 : ***Views of the sample households working additional hours in the evening - Percentage change in their income***

District	% Change in Annual Family Income
East Khasi Hills	21.34
Jaintia Hills	25.45
Ri Bhoi	22.63
Overall	23.14

Source: DJRC Primary Survey for RGGVY, 2010

5.1.4. IMPACT ON EXPENDITURE

For most sample households, entertainment is one area where there electricity has had a huge impact. Most villagers are willing to spend more than ever on their entertainment or non-food items. TV and mobile phones are major items of expenditure. Beneficiaries are happy that money spent on fuel has decreased substantially. Although they realize that one

day they would be paying bills for electricity consumption, they still prefer to have the benefits of electrification.

5.1.5. IMPACT ON AGRICULTURE

Watching TV has been very beneficial for agriculturists. More people are now aware of better methods and techniques of cropping. Use and availability of better seeds, pest management, organic farming etc are all information disseminated through TV channels. Electricity is still not being used for any commercial purpose.

5.1.6. IMPACT ON HEALTH AND SANITATION

Electricity has increased a sense of healthy habits in people. Prior to electrification most people would defecate close to the house as they did not want to go far in the dark. Now most people go to toilets that are close to the house as the area is well lit and they are not scared of the darkness. When women cooked, insects would fall due to proximity of lamp light, prior to electrification. Now women can see better and are able to provide healthier meals. TV imparts a sense of practicing healthy habits, such as washing hands before eating, drinking boiled water, getting requisite vaccinations, and having important telephone numbers and addresses of local hospitals etc.

5.1.7. IMPACT ON EDUCATION

More than 90% of beneficiaries felt that their children are able to pursue their education much better. Many children said that their grades in subjects have improved as they study extra hours in the evening to secure better marks. Children did not show much interest to study in lamp lights. With electricity, there is more clarity and reading has become enjoyable.

Little children were always unsafe around kerosene oil lamps and most parents had to sit next to them to keep a watch. This was unsafe for children and did not provide much freedom or flexibility to parents.

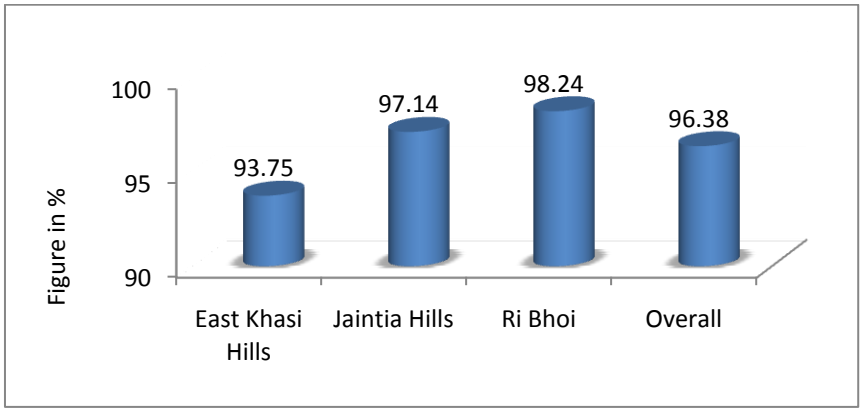
5.1.8. AWARENESS

5.1.8.1. LEVEL OF AWARENESS

All beneficiaries covered through RGGVY are aware of free connections provided to BPL households. In their understanding beneficiaries reason that RGGVY means “free connection.” And most of the beneficiaries are under the impression or have an understanding that with RGGVY there is “no payment of bills”. Although, the awareness of the program and its immediate benefits, such as free electric connection seems to be fairly high in all the sampled districts, the sampled beneficiaries seem to have minimal knowledge of details of the different types of benefits and the objectives covered under the scheme.

Since many villages and clusters are getting free electricity connection (except some clusters of Jaintia Hills district, where franchisee have been introduced), they continue to think that they may never see a bill. Some are worried that they may see a huge bill of arrears at one time and since they are poor they may not be able to settle the amount. Conducting Beneficiary Group Discussion (BGD) in the sample villages of Ri Bhoi and East Khasi Hills district, threw light on this feeling and situation of beneficiaries.

Graph: 7 ***Percentage of Sample Beneficiary Aware about RGGVY Scheme***



Source: DJRC Primary Survey for RGGVY, 2010

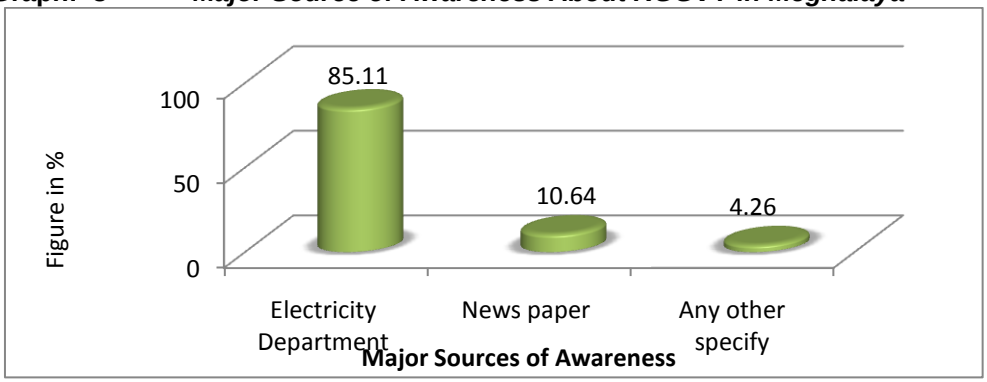
Table 25 : ***Percentage of Sample Beneficiary Aware about Free connection through RGGVY Scheme***

District	% Household Aware
East Khasi Hills	93.75
Jaintia Hills	97.14
Ri Bhoi	98.24
Overall	96.38

Source: DJRC Primary Survey for RGGVY, 2010

Sources of knowledge about free connection to BPL: Electricity department has played a major role in creating awareness among BPL beneficiaries. During survey and groundwork a lot of the BPL households came to know about free connection to be provided to them. For un-electrified villages, signboards have been placed at the entry point of the village regarding electricity connection. Around 85% of beneficiaries came to know about the scheme through the electricity department and officials. The rest came to know from the newspaper (refer graph 8 and table 26).

Graph: 8 ***Major Source of Awareness About RGGVY in Meghalaya***



Source: DJRC Primary Survey for RGGVY, 2010

All electrified households are not yet paying bill in the three implemented districts. Franchisee system or a solid system for bill payment has not yet been set up. So, many feel that it is free. Only 15.53% of sample beneficiaries pay bills due to proximity of electricity department and existence of some billing system. Billing of BPL consumers in east Khasi Hills and Ri Bhoi districts have already started, whereas the same is under progress in Jaintia Hills district.

Table 26 : *Major Source of Awareness About RGGVY (Figure in %)*

District	Electricity Department	News paper	Any other specify
East Khasi Hills	81.25	6.25	12.50
Jaintia Hills	78.57	14.29	4.55
Ri Bhoi	70.59	17.65	11.76
Overall	85.11	10.64	4.26

Source: DJRC Primary Survey for RGGVY, 2010

The Government is trying to make the people aware about various aspects of RGGVY and consumption of electricity by conducting Awareness Camps.

Table 27 : *Awareness Camp on RGGVY*

District	Awareness camp on RGGVY project in
West Garo Hills	25 (twenty five) places covering 7 (seven) C&RD blocks
South Garo Hills	10 (ten) places covering 3 (three) C&RD blocks
East Garo Hills	10 (ten) places covering 4 (four) C&RD blocks
West Khasi Hills	10 (ten) places covering 5 (five) C&RD blocks

5.1.8.2. AWARENESS OF THE BENEFICIARIES ON OPTIMUM USE OF ELECTRICITY

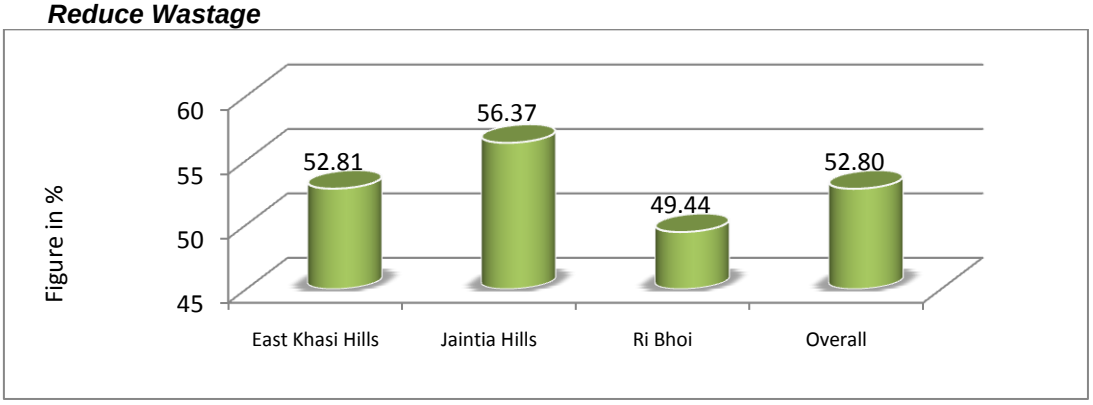
Table 28 : *Awareness of Sample Beneficiaries on Optimum use of Electricity and Reduce Wastage*

(Figure in %)

District	% of Sample Household
East Khasi Hills	52.81
Jaintia Hills	56.37
Ri Bhoi	49.44
Overall	52.80

Source: DJRC Primary Survey for RGGVY, 2010

Graph: 9 ***Awareness of Sample Beneficiaries on Optimum use of Electricity and Reduce Wastage***



Source: DJRC Primary Survey for RGGVY, 2010

In table 28, information on awareness of sample beneficiaries on the economic use of electricity is analyzed. Many beneficiaries do not understand wastage and effective use of electricity. When asked, some said they leave the switch on even when all members are out of the house. Since many feel that electricity is free they have no accountability or reason to reduce wastage. Beneficiaries need to be educated either through community awareness camps or TV (which people like to watch a lot) about electricity, its importance and cost and how to reduce wastage.

5.1.9. OPERATIONAL EFFICIENCY OF THE PROGRAM AND ITS ASSOCIATED SATISFACTION BY BENEFICIARY

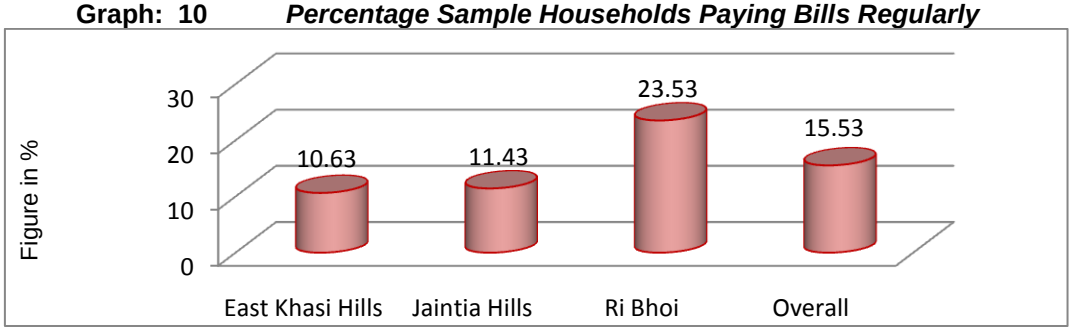
As mentioned before from sample villages only 15.53% households (covered through RGGVY) are paying bills regularly in the state. In Ri Bhoi district, it is found that 23.53% of households are paying bill regularly. When bills are provided to those beneficiaries of villages that are close to the payment centre, bills get paid. District-wise sample percentages of beneficiaries who are paying bill regularly are depicted in table 29 and graph 10.

Table 29 : ***Percentage Sample Households Paying Bills Regularly***

District	Paying Bill (%)
East Khasi Hills	10.63
Jaintia Hills	11.43
Ri Bhoi	23.53
Overall	15.53

Source: DJRC Primary Survey for RGGVY, 2010

Graph: 10 ***Percentage Sample Households Paying Bills Regularly***



Source: DJRC Primary Survey for RGGVY, 2010

Among those who are paying bills (i.e.15.53% of the sample households), 74.26% of the beneficiary households are paying a monthly bill of amount less than Rs.100 (refer table 30). Only 4.41% beneficiary households pay a bill in the range of Rs.200 to Rs.500. The beneficiaries, who are paying a high bill, are not happy. They had always assumed that bill would be low, but somehow fail to understand that if consumption is more, then bill will increase. In this regard, advertising and publicity for effective use of electricity needs to be stepped up.

Out of those sample beneficiaries who are paying regularly, about 83% are happy with the current tariff rate (refer graph 11 and table 31). They would not mind paying this bill as long as they do not have to use money on kerosene oil and bear unnecessary discomforts. No beneficiary wanted to get disconnected to live in darkness.

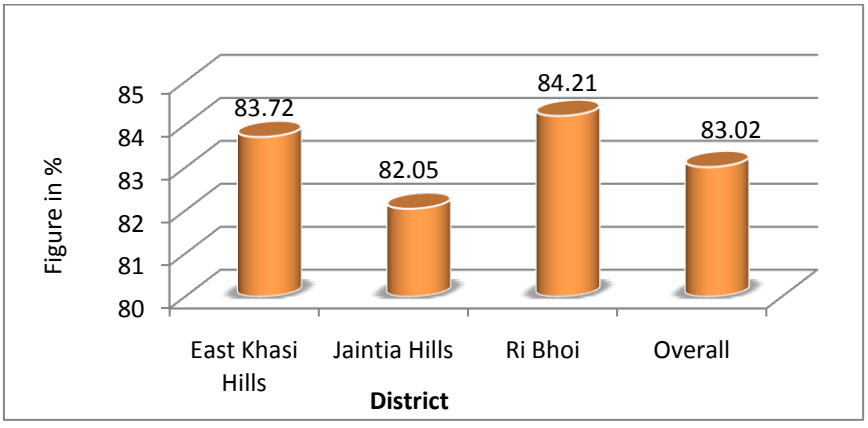
Table 30 : *Average Monthly Household Expenses on Electricity*

(Figure in %)

District	Less than Rs.100	Rs.100 to Rs.200	Rs.200 to Rs.500
East Khasi Hills	82.35	11.76	5.88
Jaintia Hills	62.50	31.25	6.25
Ri Bhoi	74.76	21.36	3.88
Overall	74.26	21.32	4.41

Source: DJRC Primary Survey for RGGVY, 2010

Graph: 11 *Percentage of Sample Households Satisfied with Current Power Tariff of RGGVY Scheme*



Source: DJRC Primary Survey for RGGVY, 2010

Table 31 : *Percentage of Sample Households Satisfied with Current Power Tariff of RGGVY Scheme*

District	Sample Households (%)
East Khasi Hills	83.72
Jaintia Hills	82.05
Ri Bhoi	84.21
Overall	83.02

Source: DJRC Primary Survey for RGGVY, 2010

For those who are paying bill in Jaintia Hills, 47.62% of the beneficiaries said that they have to travel a short distance of less than 2 km for payment. Beneficiaries interviewed wanted someone to come and collect it or wanted some drop box to be installed in the village for collection on a certain day (refer table 32).

Table 32 : *Percentage Sample Households within Convenient Distance for Paying Bill*

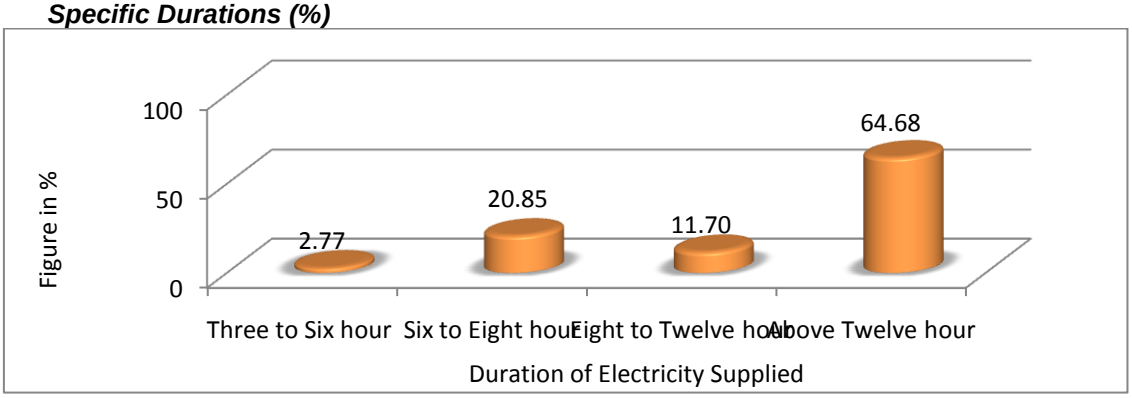
	Distances of Bill Paying From Sample Villages			
District	Less than 2 km	2 to 4 km	4 to 6 km	Above 6 km
East Khasi Hills	0	8.93	2.68	88.39
Jaintia Hills	47.62	9.52	0.00	42.86
Ri Bhoi	0	0	1.94	98.06
Overall	4.24	5.08	2.12	88.56

Source: DJRC Primary Survey for RGGVY, 2010

5.1.10. POWER SUPPLY

Electricity is supplied for more than 65% of the households for a period of more than 12 hours. In other households the hours of supply is less depending on transformer load. However beneficiaries stated that supply was mostly available during peak hours, i.e, morning and evening.

Graph: 12 *Percentage of Sample Households where Electricity is Supplied for Specific Durations (%)*



Source: DJRC Primary Survey for RGGVY, 2010

Table 33 : *Percentage of Sample Households where Electricity is Supplied for Specific Durations (%)*

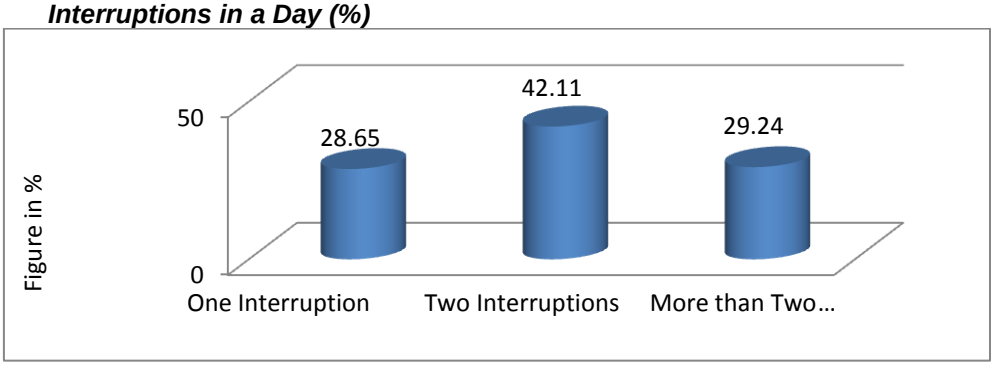
	Duration of Electricity Supply			
District	Three to Six Hours	Six to Eight Hours	Eight to Twelve Hours	Above Twelve Hours
East Khasi Hills	2.50	17.50	11.25	68.75
Jaintia Hills	5.00	24.29	9.29	61.43
Ri Bhoi	1.18	21.18	14.12	63.53
Overall	2.77	20.85	11.70	64.68

Source: DJRC Primary Survey for RGGVY, 2010

5.1.10.1. POWER INTERRUPTIONS

Under the RGGVY scheme, power supply is given at the time of their requirement. From the sample households it is found that, 28.65% of beneficiaries viewed power interruption one time during the day. However power interruptions are not a everyday occurrence. Power interruption depends on perception and is highly debatable among different individuals. The duration of power interruption seems to be less than an hour on most occasions.

Graph: 13 ***Percentage of Sample Households Experiencing Power Interruptions in a Day (%)***



Source: DJRC Primary Survey for RGGVY, 2010

Table 34 : ***Percentage of Sample Households Experiencing Power Interruptions in a Day (%)***

District	One Interruption	Two Interruptions	More than Two Interruptions
East Khasi Hills	13.51	70.27	16.22
Jaintia Hills	33.78	41.89	24.32
Ri Bhoi	31.67	25.00	43.33
Overall	28.65	42.11	29.24

Source: DJRC Primary Survey for RGGVY, 2010

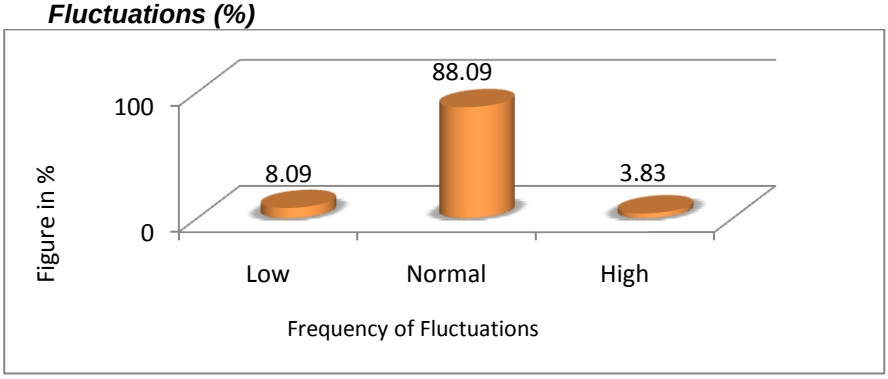
Table 35 : ***Percentage of Sample Households Experiencing Voltage Fluctuations (%)***

District	Low Frequency of Fluctuations	Normal Voltage	High Frequency of Fluctuations
East Khasi Hills	6.88	87.50	5.63
Jaintia Hills	5.00	93.57	1.43
Ri Bhoi	11.76	84.12	4.12
Overall	8.09	88.09	3.83

Source: DJRC Primary Survey for RGGVY, 2010

Voltage: It was observed in most sample villages there is normal voltage. In all three districts, 88.09% households were of the view that they are enjoying normal voltage under RGGVY scheme.

Graph: 14 ***Percentage of Sample Households Experiencing Voltage Fluctuations (%)***



Source: DJRC Primary Survey for RGGVY, 2010

Unauthorized electricity connection was found more in inaccessible or remote areas where there is low level of monitoring by the electricity department than in accessible areas. In addition to loss of power, unauthorized connections pose danger to life and property in the areas.

Table 36 : ***Percentage of Sample Households Involved in Electricity Hooking***

District	% of Households Involved in Hooking
East Khasi Hills	3.13
Jaintia Hills	7.14
Ri Bhoi	17.06
Overall	7.23

Source: DJRC Primary Survey for RGGVY, 2010

5.1.11. Public Grievance and Redress System

Most of the sample BPL beneficiaries have not faced any problems in accessing benefits through RGGVY. Those who are connected praise the ease with which they got connected and did not have to run from pillar to post with an application.

Table 37 : ***Percentage of Sample Households Facing Difficulties in Accessing Benefits under RGGVY (%)***

District	Household Facing Difficulties
East Khasi Hills	0.63
Jaintia Hills	1.43
Ri Bhoi	1.18
Overall	0.64

Source: DJRC Primary Survey for RGGVY, 2010

Table 38 : ***Percentage of Sample Households Lodging Complaints against Electricity Problems***

District	% of Household Lodged Complain
East Khasi Hills	1.25
Jaintia Hills	0.71
Ri Bhoi	1.18
Overall	1.06

Source: DJRC Primary Survey for RGGVY, 2010

WHO IS RESPONSIBLE FOR DUPLICATE CONNECTION ?

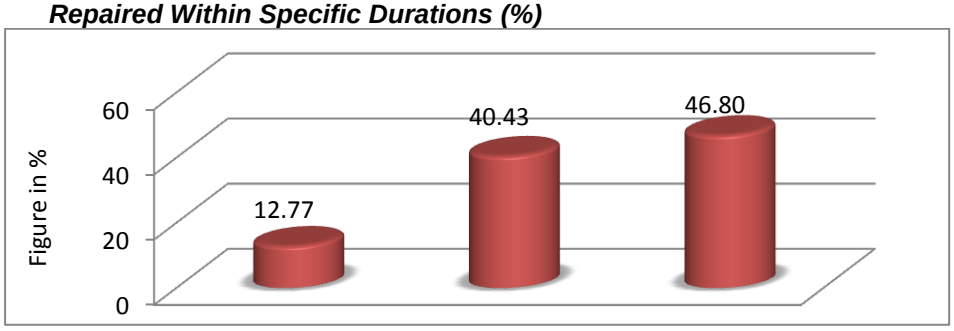
Ummlong village has been covered under RGGVY scheme and was electrified in 2009. This village belongs to Thadlaskein block of Jaintia Hills district. This was the first and the only block in this region that was taken up as a franchisee mode for electricity bill payment facilitation of RGGVY beneficiaries. Out of 490 households, 410 have been electrified. RGGVY is a very popular scheme where poor families have been provided with free electricity connection and certain electrical accessories. During the process of identification of beneficiaries for electrification, the role of village headman is crucial. Awareness and sensitization sessions about scheme and benefits have been covered.

Despite the awareness and coverage of RGGVY, cases of discrepancy and discontent are found in the village. Mrs. Kmen Shylla is (belongs to BPL household) an approved RGGVY beneficiary, however the benefit has been given to Mr.Kliofast Kharumnuid (belongs to APL household) i.e. Consumer No: 5230/R. After verification of the document in the village, it is found that the free connection has been provided to Mr. Kharumnuid instead of Mrs. Shylla's household. The electric bill is received in the name of Mr.Kharumnuid. After interviewing his wife Mrs.Saka Wanroi Lyngdoh, it is discovered that their household income is above Rs.84000 per annum. Several formalities and cross verification have been done to prepare the approved list of BPL consumers eligible for free electricity connection, yet in a few instances it is found that free connection has been given to APL households instead of the eligible BPL households. Inability to track and mend such errors will impact the poor who will continue to live in poverty and drudgery if basic benefits and allowances are not given to them.

From discussion it was found that most faults are minor in nature. Minor faults are usually sorted out within six hours and normal supply of current restored. Near about 47% of interviewed beneficiaries said minor faults are sorted out within six hours and 40.43% felt that it takes between six to 12 hours for repair. Only in 13% of cases, it takes more than one day to restore normal supply.

Table 39 : *Percentage of Sample Households where Electric Fault are Repaired Within Specific Durations (%)*			
	Duration of Repair Time		
District	One day and above	Six to twelve hours	Below Six hours
East Khasi Hills	12.50	50.00	37.50
Jaintia Hills	14.29	35.71	50.00
Ri Bhoi	11.76	35.29	52.94
Overall	12.77	40.43	46.80
Source: DJRC Primary Survey for RGGVY, 2010			

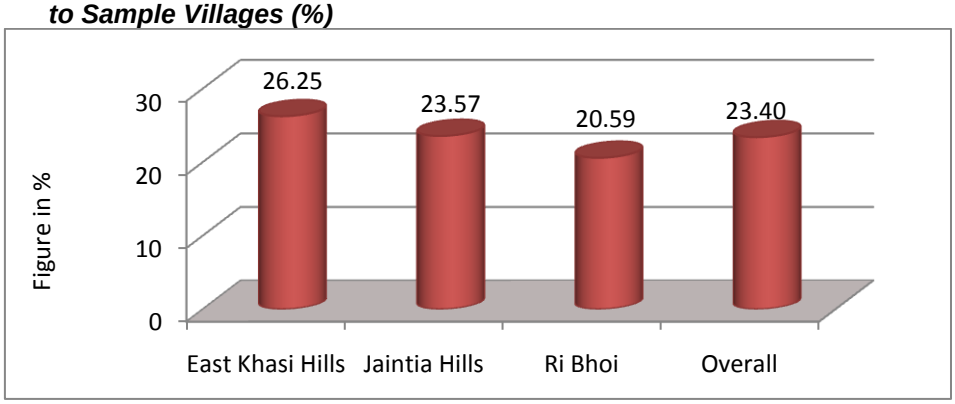
Graph: 15 ***Percentage of Sample Households where Electric Fault are Repaired Within Specific Durations (%)***



Source: DJRC Primary Survey for RGGVY, 2010

As discussed an overall percentage of 23.40% of sample households were aware of officials visiting their villages. They said that after electrification, SDO and JEs visit sites to resolve any problems in respective areas.

Graph: 16 ***Percentage of Sample Households Aware of officials' visits to Sample Villages (%)***



Source: DJRC Primary Survey for RGGVY, 2010

Table 40 : *Percentage of Sample Households Aware of officials' visits to Sample Villages (%)*	
District	Visit
East Khasi Hills	26.25
Jaintia Hills	23.57
Ri Bhoi	20.59
Overall	23.40
Source: DJRC Primary Survey for RGGVY, 2010	

6. CHAPTER-VI

6.1. BEST PRACTICES

6.1.1. BEST PRACTICES (CASE STUDIES - SUCCESS/FAILURE)

PROGRESS IN EDUCATION THROUGH RGGVY SCHEME

DISTRICT: RI BHOI

Mr. Kobal, is an illiterate poor man, 35 years of age and belongs to the Scheduled Tribe Community. He has been living in Umiet village of Umsning block in Ri Bhoi district. He lives with his wife and only son of 13 years. He currently works as a daily labourer. The family belongs to BPL category. Thus this household has been covered under RGGVY scheme. Mr. Kobal received free electricity connection in 2009. Earlier the household would make do with candles or kerosene lanterns which made life extremely difficult. The family feels very happy with electricity. Since the family is poor they would have never been in a position to get the connection if it was not free.

Winster, Mr. Kobal's son is studying in Class VII. Prior to getting electricity, Winster was reading with great difficulty using a kerosene lamp. He would always lag in class work and fare poorly in studies, as he never could spend enough time practicing at home after power connection, what he learnt in class. After a bulb has been provided at home, Winster is able to study longer at home. Mr. Kobal feels that his son is progressing well in his studies.

INCOME ENHANCEMENT OF A BLACKSMITH THROUGH ELECTRICITY

DISTRICT: EAST KHASI HILLS

Mrs. Binita Khyriem is a poor and illiterate lady of 23 years. She lives with her husband Mr. Ribinstar, two young daughters of ages one and two. The family belongs to Pomkaniew Village, in Mylliem Block of East Khasi Hills district. Prior to getting electricity connection both husband and wife worked as daily labourers in the black smith business. They were earning merely Rs.100 to Rs.150 per day making it very difficult to put two full square meals on the table. As a BPL household, they became eligible to receive free electricity connection. Once they received the connection in December 2009, the family started their own business. They worked on the household premises and recruited two people to help them out. They are both able to work three additional hours in the evening due to the connection. They are very conscious about wastage; hence they use one bulb for household purposes and another for work. The family income per day is about Rs.300 which makes them very happy. They are both very hardworking and are looking at hiring more workers to expand. They would like to pay electricity bills, but are unsure about how they should make payments.

Mr. Khyriem is busy in his blacksmith business at his workshop

Mr. Khyriem at his workshop

RGGVY Saves Money for Poor Lady

District: East Khasi Hills

Smt. Kdirsila Kharkongor is 60 years old and lives alone in her home. She belongs to the BPL category and resides in Jyntah village of Mawryngkneng Block in East Khasi Hills. She works as a daily labourer to support herself. She had heard about RGGVY scheme and when she was given free connection with a free bulb, holder and a meter she was ecstatic. At this age, it was very difficult for her to function using a kerosene lamp. Earlier she was spending around Rs.150 per month on kerosene purchasing with great difficulty from the open market. Her meter currently doesn't work and she hasn't had any bill to pay yet. However she doesn't mind paying the bill as long as she is able to function well using the electricity connection. She moves around freely and loves not going to the market to haggle over kerosene prices. She thanks the government for introducing such a scheme for making her life easier. She had one suggestion that if bills were to be introduced, she would love for someone to come and pick up the payment.

Mrs. Kdirsila Kharkongor is very thankful for RGGVY scheme

LIGHT HELPS TO PURSUE LIVING

DISTRICT: JAINTIA HILLS

Mr. Lalpuia Durpui is an illiterate poor man of 45 years. His family belongs to the Scheduled Tribe. He has been living with his family in Saipung village that comes under Khliehriat block of Jaintia Hills district. His family members are his wife, three sons and one daughter. Theirs is a BPL household. Thus this household was covered through RGGVY and on 12th December 2009 they received free electricity connection.

Mr. Durpui's three sons study in Classes III, VII and VIII respectively. They have always been facing a lot of hardship in pursuing studies in the evening. The family is poor and always hard pressed for money. During these circumstances it was extremely difficult for them to be spending Rs.250 for kerosene oil for household use. Mr. Durpui has always had to spend a lot to keep kerosene lamps burning so that his children could study. Free electricity connection is a blessing to their family especially for the children, who are free to pursue their education. Electricity enables them also to indulge in some sports activities in the evening. The family no longer has to waste money on fuel.

ONLY BPL HOUSEHOLD DEPRIVED OF FREE ELECTRICITY CONNECTION

DISTRICT: EAST KHASI HILLS

Jyntah village comes under Mawryngkneng block in East Khasi Hills. Mr. Staining Kharbani lives with his family in this village. He belongs to BPL category and works as a marginal farmer.

All the BPL households have been electrified in this village except his. According to Mrs. Kharbani, her husband's name was selected and was available on the eligible list which was provided to the contractor. However all households except his were electrified and he was told that he would receive the free connection later on. He is yet to receive the benefit. Their family is not happy with the situation since theirs is the lone BPL household which was not electrified. They currently spend Rs.200 per month on fuel and kerosene to light up the house. They are facing many discomforts including paying a high price for purchasing kerosene in the black market.

Mrs. Kharbani, at the time of interaction about the RGGVY scheme.

POOR FAMILY ELIGIBLE BUT NOT YET ELECTRIFIED

DIST: EAST KHASI HILLS

Mawkohtep village is situated in Mawphlang block of East Khasi Hills district. Mrs. Hihiana Sun belongs to BPL household. Her BPL card No. is 080009 and House No. is 8. Her family consists of two adults and four minors. She works in agriculture and during lean period as a non-agriculture labourer to support her family. Her monthly income is a mere Rs.1000, with which she finds extremely difficult to support her family.

There is a one electric poll near her house. The family is eligible to receive free electricity connection. However her household is not electrified. She doesn't understand the reasons for not receiving electricity. She has no money or means to pay for the connection either and hopes that one day she will get connection for free. Until then she will continue spending Rs.200 or above per month for candles and kerosene (from PDS dealer) purchase.

Mrs. Hiniana Sun with her BPL card at the time of interaction

ELECTRICITY PROVIDED TO ALL BPL HOUSEHOLDS IN THE VILLAGE

DIST: EAST KHASI HILLS

Umlakro village belongs to Umling block of Ri Bhoi district. As per 2001 bench mark study under REC the village has total of 68 families, of which 54 are recognized as BPL families. Most of these poor families depend on agriculture as their main source of income and often work on daily wages. A large proportion of the inhabitants also engage themselves in forest produce gathering, production of charcoal and bamboo cutting. Before RGGVY scheme was introduced in the village, village was electrified and a few of the APL households had electric connection.

It was always a dream for poor households in the village to get electricity. In January, 2009 free electricity connection was provided to all 54 BPL families with installation of a 25 KVA transformer in the village. For villagers this was a dream come true. With electricity they are able to put in two to three hours of additional work a day and are able to earn extra income. Each household saves about Rs.300 to Rs.400 monthly, money earlier spent on kerosene etc. They would not mind paying electricity bills as they feel electricity provides many opportunities leading to improvement in living conditions.

RISING THE MOON IN NOON MOON DAY

DISTRICT: JAINTIA HILLS DISTRICT

Maskut village was an un-electrified village prior to RGGVY implementation. The village is situated 27 km away from the district headquarter in Jaintia Hills district. About 50 families live in this village. Most of them depend on agriculture and forest based non-timber activity such as collection of fruits, herbs etc for income. There is a primary school in the village. The village does not have any proper road connectivity from the main road and during rainy season the village is cut-off from surrounding areas also. This village has been forever hiding under the shadow of the mountain.

People had always hoped for government to bring them electricity. At last it happened with RGGVY implementation in 2008-09. This was an inaccessible village to be electrified, hence it was a dream come true when installation work and transport of accessories began and finally on 27th April, 2009 the village was electrified. All households were overjoyed and had a huge party. They still remember that night when a dark village was lit up and fondly recall that day as "**Rising the Moon in Noon Moon Day"**.

One of the beneficiaries of Maskut village is taking the meter to install in his house.

UNDER CAPACITY OF THE TRANSFORMER

DISTRICT: EAST KHASI HILLS

Mawkohtep village was electrified through RGGVY. It is one of the villages of Mawphlang block under East Khasi Hills district. All the households in this village belong to BPL category. This is an electrified village. Prior to RGGVY implementation, 17 households had electricity. With RGGVY, a 25 KVA transformer was installed in the village, which electrified 8 additional households only. The 22 remaining households are still waiting to receive electricity. The transformer installed does not have the capacity to electrify any more household. Villagers feel that proper survey of requirement needs to be done in their village so that all eligible households have electricity.

7. CHAPTER-VII

7.1. CONSTRAINTS

- **Policy Constraints:** On policy front, a major constraint relates to application of uniform standards for selection criteria for project inclusion by the Government of India. Although some preference was given for the NER in later years, it is felt that the criteria did not take into account real situation in the field. Therefore the fund allocation for the project is not adequate to take care of the project infrastructure needs.

- **Electricity Connection for All Households:** RGGVY is largely understood as a programme for the rural poor, whereas it was intended to provide electricity in rural areas to households and other consumers for all round development of rural areas. Free connection to have a single electric point to a BPL household may be conceptually sound but not operationally economical. Any additional consumption by a BPL has to be paid for not only for consumption but also for an additional connection including an electric meter and additional fee for connection. While the BPL household is priority, sufficient publicity should have been made for the APL to have adequate number of connections.

- **Provision of Transformer Capacity up to 25 KVA:** Under the scheme provision is for transformer of capacity up to 25 KVA (such as 10 KVA, 16 KVA and 25 KVA). Low capacity transformer has been installed where the number of BPL households is less. For village electrification, no transformer has been installed with more than 25 KVA capacities. In some villages, two low-capacity transformers have been installed. Although, the households are currently consuming at low level, and all the households are not connected, yet in many villages, the transformers are at capacity. This means that further connections are constrained. The beneficiaries even if they want to have higher level of power consumption, the authorities would be constrained to provide power unless they increase the transformer capacity assuming adequate power is available from respective grids.

- **Topography and Environment:** All the districts of Meghalaya are hilly areas. It is more difficult to work in hilly areas as compared to plane areas. Transportation of materials is another problem specifically for the un-electrified and de-electrified villages. Some of these villages are far away from the market and no good road exists for transportation of construction materials to these villages.

- **Seasonal Constraints:** Another genuine problem arises during the rainy season. Due to heavy rains, it is possible to work only for six month in a year. Rivers and rivulets get filled during the season badly affecting connectivity and delaying construction/installation works.

- **Poor Awareness of the Beneficiaries Results in Avoidable Power Loss:** Awareness of the beneficiaries about consumption of electricity is very low which results in excessive avoidable consumption. In some of the cases it was observed at the time of field visit that, although there was nobody in the house, the light was on during the daytime.

- **Burden on Beneficiaries:** It has been observed that most of the beneficiaries are consuming electricity without paying monthly bills. It is already one and half years since their houses was connected. As soon as the franchisee system would be introduced, the beneficiaries have to pay arrear bills for more than a year at one go which would prove to be big financial burden. Those who feel that the electricity consumed is free would feel worse once the billing system is introduced and they are asked to deposit large amounts as arrears.

8. CHAPTER-VII

8.1. CONCLUSION AND RECOMMENDATIONS

The progress under RGGVY in three districts is regarded as satisfactory. The energy supply situation in rural areas is good and does not have long interruptions. The benefits in terms of awareness creation, adoption of improved practices, and increase in livelihood options have already been seen within a very short span. Increased income and higher level of utilization of labour time on production activities and relaxation are good indicators of positive developments. However, the short time that has elapsed between the electricity connection and this evaluation does not provide enough scope for a full scale assessment of impact.

It nonetheless provides a basis for greater understanding of factors that can substantially enhance positive impact in terms of productivity, income redistribution and social outcomes. For this to happen, all the households should be targeted rather than just BPL households for electrification. Publicity programmes must be implemented to enhance the awareness of the current and future beneficiaries.

There should be proper estimate of demand of electricity in each village both at current and future load level and accordingly adequate capacity of transformer installed. There should be introduction of Mini Circuit Breaker (MCB) for protection of transformer: Introduction of Franchises should be at the earliest. The BPL households need advice to use CFL bulb (15wt) instead of 100 watt bulb.

Rural electrification through RGGVY should be intensified for all-round development of rural Meghalaya. Capacity constraints found in the State to fully implement this programme may have to be removed through use of consultants while capacity augmentation is being addressed through medium-term planning. Rural electrification should be a part of rural livelihood improvement through convergence of various schemes of development. This requires district level planning matching resources to demands of various socio-economic sectors and sections of particular districts.

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10. ANNEXURE

Annexure: 1 Village-wise Sample Details of RGGVY Meghalaya

Village-wise Sample Details of RGGVY Meghalaya		
Name of the District: East Khasi Hills		
Block Name	**Village Name**	**No. of Samples**
Mawphlang	Kharnongwah	10
	Mawkohtep	10
	Mawrengeast	10
	Total	**30**
Mawryngkneng	Jyntah	10
	Ksehpongdeng	10
	Pomlahier (Iapshyndiet)	10
	Ryngksaw	10
	Total	**40**
Mawsynram	Kyrphei	10
	Laitmawsiang	10
	Pongkung	10
	Rajamraja	10
	Total	**40**
Mylliem	12th Mile	10
	Baniun	10
	Mawwan	10
	Pomkaniew	10
	Umlympung	10
	Total	**50**
District Total		**160**

Name of the District: Jaintia Hills		
Block Name	**Village Name**	**No. of Samples**
Khliehriat	Daistong	10
	Lumthari	10
	Pamrakmai	10
	Saipung	10
	Tuberkmaishnong	10
	Total	**50**
Laskein	Madanrwan	10
	Nongkynrih	10
	Sahsniang	10
	Tumtum	10
	Total	**40**
Thadalaskein	Ladmukhla	10
	Lumkhudung	10
	Maskut	10
	Plongingkhaw	10
	Ummulong	10
	Total	**50**
District Total		**140**

Name of the District: Ri Bhoi		
Block Name	**Village Name**	**No. of Samples**
Umling	Korbalu	10
	Nongbirthem Mawtamur	10
	Pahambirlum	10
	Patharkhmah	10
	Sohkyrbam Domphlang	10
	Tasku	10
	Umlakro	10
	Wahsynnoh Nongdom	10
	Total	**80**
Umsning	Klew	10
	Mawbsein	10
	Mawdwar	10
	Mawlasnai	10
	Nongdewsaw	10
	Sohliya	10
	Thadnongiaw	10
	Umeit	10
	Umpohwin	10
	Total	**90**
District Total		**170**
Overall Total		**470**

Annexure: 2 List of Franchisee Villages of Jaintia Hills District

List of Franchisee Villages of Jaintia Hills District						
Name of Block/Franchisee	Name of Village	Census Code	No. of Household	Transformers Capacity (KVA)	No. of Consumers	Cluster
Thadalaskein Block						
Smt. Ripnar Lamare	Wahrymbai	562000	47	63	54	Cluster-2
	Tryshang	562100	110	63	50	
	Wahiajer	562400	741	373	593	
	Ummulong	562900	445	413	558	
					1255	
Shri. Lovely Syndai	Nongsutnga	556500	17	25	5	Cluster-4
	Nartiang	560800	422	125	242	
	Moodop	560900	70	100	65	
	Morathud	556800	40	25	20	
	Nonglatem	559100	97	25	16	
	Nongkharai	559300	41	25	19	
					367	
Shri Aiiad Bhoi	Ladmukhla	563200	174	100	18	Cluster-8
	Mukhla Sohshrieh	563300	61	63	29	
	Mukhla Sohshrieh	563400	244	100	159	
	Umlangshor	563500	89	63	11	
	khliehtyrshi	563600	133	163	74	
	Moopyllait Syiar	564100	137	63	88	
	ATS	564200	117	100	12	
	Mookyniong	564300	189	100	89	

List of Franchisee Villages of Jaintia Hills District						
Name of Block/Franchisee	Name of Village	Census Code	No. of Household	Transformers Capacity (KVA)	No. of Consumers	Cluster
					480	
Shri Bikin Dhar	Sabah Mynswang	563900	156	75	53	Cluster-9
	Ialong	564000	355	163	297	
					350	
Smt. Crimonda Susngi	Moopasi	562700	26	25	15	Cluster-10
	Nongbah	562800	877	326	513	
	Mookaswan	563700	90	16	14	
					542	
M/S Tori Enterprise	Demthring	564900	187	100	205	Cluster-12
	Sohmynting	565000	368	163	241	
	Pynthorlangtein	565100	81	25	70	
	Muphlang	565500	72	25	62	
	Mustem	565600	253	100	155	
					733	
Shri Heplanmi Kamar	Longkasaro	567700	47	25	18	Cluster-14
	Sahsniang	567800	388	163	259	
	Mooshrut	567900	199	50	80	
	Kyrwen	568000	35	25	20	
	Longkwang	568100	50	50	6	
	Hynniawkmai	569000	47	25	30	
	Longulang	569400	22	25	14	
	Mynksan	569500	55	25	22	
					449	
Shri Heplanmi Kamar	Mukhap	573000	332	200	156	Cluster-15
	Mootyrshiah	569900	349	188	251	
	Laskein	570000	214	63	119	
	Mokaiaw	567900	317	300	279	
					805	
Smt. Arpi Rymbai	Khliehumbuit	570600	9	25	14	Cluster-17
	Mynso	570800	383	200	172	
	Kyndongtuber	570900	548	263	130	
	Pammanik	571100	236	63	56	
	Pasyih	571200	268	25	65	
	Phramer	571400	231	300	195	
					632	
Laskien Block (Khliehriat Revenue Sub-division)						
Shri. Alphius L. Sutnga	Rtang	572500	80	50	14	Cluster-19
	Biar	572800	61	63	3	
	Nongryngkoh	572900	76	No Tr	32	
	Khonshnong	573100	169	63	54	
	Lakadong	573200	27	25	22	
	Umsalait	573300	139	25	42	
	Looksi	573400	272	100	140	
	Umdienglieng	573600	118	No Tr	35	
	Jawthymme	573700	52	25	14	
	Saphai	573800	311	63	85	
	Priang	574400	93	25	44	
					485	
Shri K Lah Pohktai	Amsarim	575600	38	100	9	Cluster-22
	Amlarem	575700	145	200	244	
	Ammutong	575800	55	No Tr	6	

List of Franchisee Villages of Jaintia Hills District						
Name of Block/Franchisee	Name of Village	Census Code	No. of Household	Transformers Capacity (KVA)	No. of Consumers	Cluster
	Mawlong	576000	44	63	35	
	Amtapoh	576300	59	25	40	
	Pdengkarong	576700	55	25	29	
	Amralang	576800	12	25	2	
	Amjajer Roko	577900	15	25	16	
					381	
Shri. K. Lah Pohktai	Sohkha Model	579000	49	25	20	Cluster-25
	Kudengthymmai	577800	34	25	21	
	Sohkha Shnong	578000	73	63	45	
	Lamin	578100	189	63	182	
	Sohkha Mission	578300	81	100	63	
	Sohkha Phlang	578400	6	No Tr	5	
	Nongtalang	578700	281	63	57	
	Nongatalang Mission	578800	71	200	214	
	Nongatalang Thymmai	578900	64	25	16	
					623	
Khliehriat Block (Khliehriat Revenue Sub-division)						
Smt. Meera Siangshai	Sohshrieh	583300	137	63	99	Cluster-30
	Tuberkmaishnong	585400	258	163	236	
					335	

Annexure: 3 Village Schedule

VILLAGE SCHEDULE
RAJIV GANDHI GRAMEEN VIDYUTIKARAN YOJANA
(RGGVY)

State_____**District**_____**Block**_____

Village_____**Village Census Code**_____

1. Number of households in the village:

2. List of BPL households of the village:

3. List of RGGVY beneficiary (BPL):

4. Number of electrified household:

5. Social category wise number of households of the village.

SC HH……..ST HH……..OBC HH…….General HH…….

6. Percentages of people who are aware about the Rajiv Gandhi Grameen Vidyutikaran Yojana? ☐
(1: Less than 20% 2:20 to 50% 3:50 to 70% 4: Above 70%)

7. Are the villagers aware about type of electrification being supplied ☐
(1.Hydro generated 2.Wind generated 3.Solar generated 4. Other).

8. What are the major sources of information about RGGVY? ☐
(1: News paper 2: TV Advertisement 3: Radio 4: Electric Department 5.Any other Specify)

9. Who initiated contact regarding electrification at village level from Government? ☐
(1: Village head 2: Govt. official 3: Contractor)

10. What are the steps involved from knowing about the scheme to first connection to the village?

11. What types of benefits available under RGGVY scheme? ☐
(1: Free Electricity Connection 2: Free Equipment 3: Free Light Bulb
4: Free Consumption Charges)

12. Is your village included in RGGVY scheme? (1:Yes 2:No) ☐

13. If yes, then since how many years in your village electrification has been made under RGGVY scheme? (1: One to Two years 2: Two to Three years 3: Three to Four years 4: Above Four years.) ☐

14. Whether your village has been electrified in scheduled time period? ☐
(1: Yes 2: No)

15. If not, what are the reasons for delay?

16. How many times are there interruptions of power per day in your village? ☐
(1: One 2: Two 3: Three 4: Four 5: Five and above)

17. How many BPL households are benefited under RGGVY scheme in your village?

18. How many APL households are benefited under RGGVY scheme in your village?

19. How many BPL households have not yet electrified under RGGVY although they are eligible under the scheme?

20. In how many households (%) meters are installed? ☐
(1: 0% 2: 25% 3: 50% 4: 100%)

21. In how many households (%) meters are not installed? ☐
(1: 0% 2: 25% 3: 50% 4: 100%)

22. Do officials visits to supervise/monitor the electric supply in your village/household? (1: Yes 2: No) ☐

23. Number of Household using Hooking. ☐
(1: <5 HHs 2: >5 to < 10 HHs 3: > 10 HHs)

24. On which basis the RGGVY beneficiaries are selected (selection Procedure)? ☐
(1: BPL list of State Government 2:Village Headman 3:Any other)

25. Who select the beneficiary in your village?

26. After application process, how much time does it take to get connection. ☐
(1: One week 2: Two week 3: One month 4: One to three month
5: Three to Six month)

27. Types of benefits provided to the beneficiaries. ☐
(1: Free Electricity Connection 2: Free Equipment 3: Free Light Bulb
4: Free Consumption Charges 5: Any other specify)

28. Are electrical equipments easily available in your locality? (1: Yes 2: No) ☐

29. How are the costs of the electrical equipments? (1: High 2: Low 3: Medium) ☐

30. Are electrical equipments used in farming? (1: Yes 2: No) ☐

31. How many days per months is it used? (1: 10 days 2: 15 days 3: 20 days) ☐

32. How many months per year is it used? ☐
(1: 2 months 2: 4 months 3: 6 months 4: More than 6 months)

33. Is there any street light in your village? (1: Yes 2: No) ☐

34. Numbers of electric pump sets used for irrigation purpose? ☐
(1: Less than Three 2: Three to seven 3: More than seven)

35. Is there any MSME industry in your villages? (1: Yes 2: No) ☐

36. Before electrification of your village how many diesel/kerosene pump sets were there? (1: No anyone 2: Only one 3: One to Three 4: More than Three) ☐

37. Number of MSME industries in your village consuming electricity for their production? (1: There is no such Industries 2: Only one 3: One to Three 4: More than Three)

38. Before the electrification of your village how many MSME units were run by the diesel / kerosene? (1: There is no such Industries 2: Only one 3: One to Three 4: More than Three)

39. Is there any fluctuation of voltage in your village? (1: Yes 2: No)

40. If any minor fault occurs in electricity supply, how much time it takes to repair? (1: within one hour 2: one to three hour 3: three to six hour 4: six to twelve hour 5: one day and above)

41. If any major fault occurs in electricity supply, how much time taken to repaired it? (1: within one Day 2: one to three Day 3: three to six Day 4: six to fifteen Day 5: above fifteen day)

42. Is there any transformer in your village? (1: Yes 2: No)

43. How many transformers are being used for the village? (1: One 2: Two 3: Three 4: Four)

44. If yes, what is the capacity of the transformer? (1: 5 KV 2: 10 3: 16 KV 3: 25 KV)

45. If no, then to which transformer your village is connected and what is the distance of this transformer from your village?

Name of the village where transformer is installed……
Distance from your village……..

46. Is anyone demanding money for electric connection? (1: Yes 2: No)

47. Are there any changes in your life style after electrification of your village? (1: Yes 2: No)

48. After electrification of your village, has it improved your villager's income? (1: Yes 2: No)

49. After electrification to your village, has it improved your villager's employment? (1:Yes 2: No)

50. After electrification to your village, has it improved your village Agricultural activities? (1: Yes 2: No)

51. After electrification to your village, has it improved your village household's health Status? (1:Yes 2:No)

52. After electrification to your village, what is the impact on irrigation? (1: Better Irrigation Facilities 2: As usual 3: Any other specify 4: Can not say)

53. After electrification to your village, what is the impact on your village household's expenditure? (1: Increased 2: As usual 3: Can not say)

54. After electrification to your village, what is the impact on entertainment? (1: Better Entertainment than before 2: As usual 3: Can not say)

55. Before electrification was there any migration? ☐
(1: Nil 2: Number of Persons…….)

56. After electrification is there any change in migration? ☐
(1: Nil 2: Number of Persons…….)

57. How much time does it take to get the benefits? ☐
(1: One week 2: Two week 3: One month 4: One to three month
5: Three to Six month)

58. Is there any delay in electric connection? (1: Yes 2: No) ☐

59. Name of the franchises which manages your village.

60. Has any household in your village discussed his problem in any public grievance system? (1:yes 2:No) ☐

61. Is there a Department or point of contact for implementation grievances, monitoring and supervision of all electrical or non-electrical or electrification purpose? (1: Yes 2: No) ☐

62. Is village level grievance redressal system different from household level? ☐
(1: Yes 2: No)

63. If Yes, please describe

64. How many households have fixed units of power supplied to them (Based on tariff /monthly fixed tariff)? (1. One 2. Two 3. Three) ☐

65. If yes, what type of problems that household faced?

66. Kindly provide your suggestion for betterment of Scheme

Signature of Investigator with Date

Signature of Team Leader with Date

Annexure: 4 HOUSEHOLD SCHEDULE

HOUSEHOLD SCHEDULE
FOR
RAJIV GANDHI GRAMEEN VIDYUTIKARAN YOJANA (RGGVY)

State_____**District**_____**Block**_____

Village _____ **Village Census Code**_____

1. Name of the Respondent:

2. Name of the Beneficiary:

3. Economic Category: (1: APL 2: BPL) ☐

4. Social Category: (1: SC 2: ST 3: OBC 4: General 5: Any other) ☐

5. Occupation:
(1:Agriculture 2:Agri-Labour 3:Non-Agri labourer 4:Animal Husbandry 5:Rural Artisan 6:NTFP Gatherer 7:Service Sector 8:Petty/Small Business) ☐

6. Are you aware about the RGGVY scheme? (1: Yes 2: No) ☐

7. If yes, what are the main objectives of the scheme?
(1: Electrifying all villages and habitation 2: Providing access to Electricity to all Rural Households 3: Electricity connection to BPL families free of charge 4. Can't Say) ☐

8. If yes, what are the benefits of the scheme to its beneficiaries?
(1: Free electricity connection to BPL Household 2: Free electricity connection to APL/BPL Household 3: Free consumption charges to BPL Household) ☐

9. Is your house electrified? (1: Yes 2: No) ☐

10. If yes, under which scheme you are getting electricity?
(1: RGGVY Scheme 2: Any other specify) ☐

11. If no, why you haven't taken electricity connection?
(1: Not required 2: Lack of Finance 3: Any other specify) ☐

12. Did you get household electricity connection in scheduled time period or not? (1: Yes 2: No) ☐

13. If not, what are the reasons for delay?
(1: Lack of money 2: Delay by the department) ☐

14. Did you fill any application form to get electricity under RGGVY scheme?
(1: Yes 2: No) ☐

15. If yes, where did you submit the application?
(1: Gram Panchayat 2: Electricity office 3: Collected by Authority 4: Village Head 5: Any Other Specify)

16. Who recommended you or sanctioned your application to get the benefits?
(1: Gram Panchayat 2: State Electricity office 3: Village Head 4: Any Other Specify)

17. To get the connection, did you face any difficulties in procedure and formalities?
(1: Yes 2: No)

18. How much money have you spent so far to get the electricity connection?
(1: Less than 100 2:100 to 500 3:500 to 1000 4: More than 1000 5. Nil)

19. To get the connection, has anyone demanded extra money from you?
(1: Yes 2: No)

20. If yes, who demands money and how much?
(1: Department officials 2: Contract or 3: Other)

21. Who gets your house wired?
(1: Self 2:Govt. 3: NGO 4: Electricity Department 5: Any other Specify)

22. How much money is spent on wiring?
(1: Less than 500 2:500 to 1000 3:1000 to 2000 4: 2000 to 5000 5. Above 5000 6: Nil)

23. What benefits are you getting from RGGVY scheme?
(1: Free electricity connection 2: Free electricity consumption 3: Free electricity wiring 4. Any other (Specify)

24. Which electronic/electrical goods do you have in your house?

Type of Electronic/electrical goods	Quantity	Type of Electronic/electrical goods	Quantity
Light Bulbs		Computer	
Fan		Washing Machine	
Iron		Heater	
TV		Room Heater	
Water Pump		A.C.	
Music System		Any Other (Please Specify)	

25. For how many hours electricity is supplied to your house?
(1: Less than 3 hour 2: Three to Six hour 3: Six to Eight hour 4: Eight to Twelve hour 5: Above Twelve hour)

26. What types of electrical equipments are you using in farming or agriculture?
(1: Threshing machine 2: Electrical motor pump 3: Other)

27. How many days in a month such instruments are used?
(1: 10days 2. 15 days 3. 20 days)

28. Is there regular power cut? (1: Yes 2: No)

29. If yes, how many times? (1: Once 2: Twice 3: More) ☐

30. How is the voltage of electricity in your house? ☐
(1: Low 2: Normal 3: High)

31. Are you paying bill regularly? (1: Yes 2: No) ☐

32. If yes in which place, are you paying bill? ☐
(1: Electricity office 2: Village head 3: Other (specify) ----------

33. What is the distance of the bill paying centre from your village? ☐
(1: Less than 2 km 2: 2 to 4 KM 3: 4 to 6 KM 4: Above 6 km)

34. What is the average monthly expense on electricity for your house? ☐
(1: Less than 100 2:100 to 200 3:200 to 500 4: Above 500)

35. Before electrification, what was the annual family income?
(Amount in Rs)

36. After electrification, what is your annual family income?
(Amount in Rs)

37. Before electrification, how many days of work was your family getting?

38. After electrification, how many days of work is your family getting?

39. After getting electricity, what are the changes in your habits/life style?

40. After getting electricity, what changes have occurred in your cultural activities?

41. What is the impact of electricity on your household‘s Security?

42. What were the sources of power used in your house before electrification? ☐
(1: Oil 2: Wood 3: Solar 4: Wind 5: Any other Specify)

43. Has anyone in your neighbourhood been regularly involved in hooking of electricity? ☐
(1: Yes 2: No)

44. Has anyone illegally drawn electricity from your household? (1: Yes 2: No) ☐

45. If yes, where do you file a complaint? (1: Electric Office 2: Police 3: Village Head) ☐

46. Are you facing any difficulties to get access to the benefits of RGGVY? ☐
(1: Yes 2: No)

47. If yes, what type of problems are you facing?

48. Do officials visit to supervise/monitor the electric supply in your ☐

village/household? (1: Yes 2: No)

49. Are you satisfied with the current power tariff? (1. Yes 2. No)

50. Have you complained anybody/authorities regarding electrification/electricity problems? (1: Yes 2: No)

51. Do you receive a complaint number or ticket? (1: Yes 2: No 3: NA)

52. Do you ever have to revisit after deadline of booked complain has passed? (1: Yes 2: No)

53. If yes, what is the response of the authority? (1: Redressed within 7 days 2: Redressed within 15 days 3: Redressed within 30 days 4: Not Redressed)

54. In which month/year did you get electricity connection?

55. Number of units consumed in a month.

56. Kindly provide your suggestion for betterment of scheme.

Signature of Investigator with Date

Signature of Team Leader with Date

Project Leaders

Dr. Damodar Tripathy

Ms. Julie Tripathy

Senior DJRC Officials

Dr. J. K. Misra

Mr. Anshuman Tripathy (Er.)

Dr. A. K. Neog

K. S. Shetty (I.E. S. Rtd.)

Er.. P. K. Mishra

Er. Y. D. Sharma

DJRC Research Team

Mr. Bidhan Kumar Mohapatra (Manager)

Mr. Ashok Kumar Panda

Mr. Bhagaban Parida

Mr. Laxmikanta Mohanta

Mr. Tanmaya Kumar Jena

Mr. Jugal Kumar Sahu

Mr. Sunil Kumar Barla

Mr. Susanta Kumar Sahoo

Mr. Rashmi Ranjan Swain

Mr. Manoja Kumar Jena

Mr. Sesadev Rath