



**Rajiv Gandhi Grameen Vidyutikaran Yojana**  
**Social Survey Report**

**RGVY – Progress Unlimited**

**Decentralised Renewable Energy = Energy Equity**

**Srikakulam district, Andhra Pradesh**

**Social Audit organized by:**

**Greenpeace India and Bapuji Rural Enlightenment and Development Society (BREDS)**

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## Report on the Social Audit of the RGGVY scheme at Srikakulam district, AP

### I. Introduction

India, a rapidly emerging economy with the world's second largest population, is facing a surging energy demand. Rural India consists of 114 million households, almost 60 percent of the country's total population. Access to and a steady supply of energy to this large section of the Indian population has always been a question. The Indian government quotes the large number of people deprived of electricity as the main reason to continue adding a huge number of large power plants based on conventional technology (coal, large hydro and nuclear), despite knowing well the detrimental impacts of such policies.

To bridge the urban-rural gap and provide reliable and quality power supply to rural areas Government of India initiated **Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)** in 2005. The Ministry of Power is the nodal agency implementing the scheme with a mandate to attain the National Common Minimum Programme (NCMP) goal of providing access to electricity to all households by 2010 which was later extended to 2012. However looking at the implementation pace, government is planning to take it up in the 12<sup>th</sup> Five Year Plan (2012-17).

The scheme has focused mainly on the development and extension of the centralized grid system to rural areas to **provide quality and reliable power to rural areas**. This has however been far from successful. Though the scheme set a mandate of electrifying all households, a faulty definition of "village electrification" diluted the aim significantly. According to state-wise data, provided by the Ministry of Power, providing all below poverty line (BPL) households free electricity connection have not materialized in most states of the country.

Therefore, it is imperative that RGGVY is reviewed by the people before it is continued in the 12<sup>th</sup> plan period and people's concerns and suggestions are taken into consideration to ensure that the scheme does deliver quality energy to the millions in India currently deprived of it. Greenpeace India has initiated a social audit series to enable such a process in Bihar, Uttar Pradesh and Andhra Pradesh.

In Andhra Pradesh, Greenpeace along with its partner organization Bapuji Rural Enlightenment and Development Society (BREDS) carried out the social audit of the scheme in Srikakulam district. The aim of the audit is to bring out the implementation reality of the scheme and examine whether the mandate of the scheme has been fulfilled or not.

### II. Power situation and RGGVY in Srikakulam district

Srikakulam district is the extreme northeastern district of Andhra Pradesh. Vizianagaram district flanks in the south and west while Orissa bounds it in the north and Bay of Bengal on the east. The total area of the district is 5837 sq. kms. It has a population of 2.5 million according to the 2001 census.

Last summer, Andhra Pradesh faced a tight demand-supply situation. Power utilities in the state struggled to bridge the demand-supply gap for 3-4 months beginning with February last year. It had led to a 30-35 per cent production loss for the manufacturing industry on account of a 4-hour peak load cut and a three-day holiday (no power supply for one week).

Srikakulam district has second highest number of villages under the purview of the RGGVY scheme across all districts of Andhra Pradesh. A total of 1810 villages across 38 blocks (mandals) of Srikakulam district have been incorporated in the RGGVY scheme. All the villages are of previously electrified category and have been taken up for intense electrification. Andhra Pradesh Eastern Power Distribution Company Ltd. (APEPDCL) is the

implementing agency of RGGVY.

According to RGGVY website data, 100% work on intense electrification has been achieved, however only 80.7% (157268 out of 194941) BPL households entitled for free connection have received the facility. Under the 10<sup>th</sup> five year plan Rs. 4779 lakh have been awarded (revised amount) to the district for implementation, of which 90% money has been released. The budget allocation for entire Andhra Pradesh for RGGVY work has been Rs.876.4 crore of which 81.6% money has been released so far.

### **III. Methodology of the social survey**

Firstly, through a process of random selection eight villages spread across two mandals (block) were chosen for conducting the social survey. These are

**Saravakota Mandal : Annupuram, Chodasamudram, Chinna gujjuvada and B Kotturu.**

**Pathapatnam Mandal : Chinnamallipuram, Ganguvada, Gopalapuram and Konangi.**

Primary data for the social survey was collected from APEPDCL offices in Srikakulam and both the mandals. This included the following

- List of BPL connections (proposed and released) of BPL consumers in the aforementioned village;
- Gram Panchayat Certificate(GPC) for the aforementioned village;
- Certified photocopy of the original infrastructure details (proposed and completed) of electrification work in the aforementioned village;
- Certified photocopy of in-built drawings of 11KV and LT lines of aforementioned villages;

Once the primary data was collected the social survey began and this was conducted by a team of 8 members, which constituted of students and volunteers involved with BREDS.

The social survey included the following

- Verification of list of BPL connections (proposed and released) of BPL consumers in the selected sample villages
- One to one interview with villagers (both APL and BPL) who are beneficiary of or excluded from the scheme
- Interviews were conducted based on a survey questionnaire which had seven approaches – speed of provision, quality of supply, inclusion, affordability, security of supply, rural development index and awareness on climate protection.
- Awareness generation meetings in villages (about their entitlement under the scheme and alternative pathways to generate electricity through renewable sources)

### **IV. Information gathered from the survey**

**1. Socio economic parameters:** A majority of the people in the villages surveyed belonged to BPL category and their main occupation was farming either on their own or through casual labour. The survey team interviewed a mix group of people from BPL category. Majority of the households that were surveyed, around 90%, had an income of less than INR 1000 per month. The remaining households had an income in the range of INR 1000 – 2000 per month.

**2. Awareness on the scheme:** Awareness about RGGVY scheme was found to be poor in some villages. However in Konangi village almost all the people knew about the scheme. 57% of the respondents were not at all aware of the scheme, primarily as most of these villages had been electrified long back under state electrification schemes with the year of electrification ranging from 1976 to 1991. 43 % of the surveyed people knew about the scheme but not all the aspects.

**3. Speed of Provision:** Most of the villages in this region have already been electrified a long time ago, the dates according to the survey ranging from 1976 to 1991. These villages have been electrified under different state electrification schemes. During the survey we found that the electrification rate was around 96% whereas the APEPDCL claim to have achieved 100%.

**4. Quality of supply:** Villages have complained that the electricity supply is erratic and available at times such as afternoon when they have no real use for it. It is quite unreliable in terms of quality and low voltage, which does not allow them to use appliances for their needs and also limits the usage to basic lighting and fans. More than 80% of the surveyed people got electricity for around 8 hours a day but they had a need for at least 16 hours a day. In simple terms only around half or even less than that of their energy needs is met. 90% of the respondents preferred electricity supply after sunset and expressed its importance for better living conditions. 75% of the households needed electricity for studying and household work, the remainder of households had various reasons such as cooking, lighting and for cooling in summers.

**5. Inclusion of stakeholders in the scheme:** Since there have been electricity connections already provided under various state run schemes, the RGGVY mandate was to intensify the electrification rate.

People that have received an electricity connection have paid some amount of money, ranging from INR 125 – 2000 for the connection. These amounts have been paid to the electricity offices during different years and under different schemes. Hence it is not possible to infer whether these were paid for connections under the RGGVY scheme.

Most of the households reported that they had consulted the Panchayat head or the Sarpanch for seeking an electricity connection and in turn they would consult the concerned electricity office. The sarpanch's of all the villages had not been contacted nor their support sought throughout the whole process of intense electrification under the RGGVY scheme.

**6. Capacity of people to spend on energy/electricity:** It was quite evident from the survey that people have willingness and ability to pay for energy resources. They have been paying in the range of Rs 100 – 300 every month and also all the households were using and spending more than Rs 50 every month on kerosene as an alternative source of lighting.

**7. Security of electricity supply:** On an overall basis, the security of supply in all the villages is pretty good. They do have a secure connection and the transformers are well maintained and the electricity office does respond

in time (within 24 hours) in case of problems. They do have electricity supply for almost 20 – 25 days a month. The main problem is that it is not a continuous supply. People demand a stable supply and not an intermittent one.

**9. Rural Development Index:** Given RGGVY's mandate of enabling indirect benefits through electrification of panchayat bhavan, schools, health centres and micro enterprises, the survey also tried to understand the effect of RGGVY on the above. Additionally, the survey also queried on the benefits of electrification on irrigation, an important aspect of agricultural and rural development missed by the scheme.

Irrigation: A majority of the respondents reported that they rely on rain for irrigation and they did not use pump sets to a great extent. Geographically they are in an area where they get ample rains throughout the year. On micro-enterprises, health centres, schools, panchayat bhavans and cold storage, there were few villages that have micro-enterprises such as rice mills and grinding mills. Most of the commercial activities are in the mandal headquarters. Hence RGGVY has not really provided benefits by electrifying rural enterprises.

**10. Awareness on Climate change and climate protection:**

A majority of the respondents were aware that coal and diesel caused pollution, while very few knew about the connection of coal with climate change. A majority of the respondents were aware that renewable energy is environment friendly. An overwhelming 99% preferred renewable energy over coal and diesel if given a choice in the matter. Their preference stemmed from the observation of solar street lighting systems and solar lanterns in nearby villages and had heard of it to be more reliable than grid electricity.

**V. Observations and Inference from the survey**

**Observations**

- On a general note, the electrification rate that is connectivity of households to an electricity supply across the villages is pretty good. Households in most of the villages have metered connections, but there is a prevalent shortage of electricity supply.
- Long hours of power cuts are a daily affair in villages and mostly during the peak hours that is when it is required the most.
- Shortage of power has resulted in no development for schools, health care centres. With a constant supply of power schools can be equipped with computers, equipments for experiments and other educational applications. Similarly with health centres they could be set up locally for villages.
- Most of the times the voltage is low and hence people in the villages cannot run appliances and or set up small scale industries.
- Without reliable and quality supply of electricity it diminishes and limits the possibilities of economic and commercial activities in most villages and hence these people have to go to towns and district headquarters for most of their activities.
- Remote villages like Konangi in Pathapatnam mandal have not been electrified, even though they are under the RGGVY scheme. They are facing persistent problems with receiving electricity.

**Demands of the people in the villages**

- People in the villages do aspire for a stable and reliable supply of electricity as they feel it would help them in various ways to improve their lives and livelihood.
- By having a steady supply of electricity villagers can think of increasing productivity. It would increase their working hours and empower them.
- They do feel that having decentralized models of energy generation would be able to provide them longer hours of electricity.
- People in villages think that a steady power supply would help their children study for longer periods and would ensure their villages have health centres and stock of medical supply.
- Villagers and Panchayat heads feel that there have to be locally managed energy systems which would enable people to take charge of their energy needs.

### **Inference**

The significant aspect that has emerged out of the social survey is that RGGVY has not been able to meet the aspirations of the people. The villages in these two mandals having been previously electrified, now demand for more electricity for purposes other than basic lighting and fan. The centralized nature of the scheme means that one standard frame is applied to all villages. Regional and local conditions and needs have not been taken into consideration.

The intense electrification that RGGVY was supposed to do has not happened as even under intense electrification the scheme is providing the same 6-7 hours of electricity. This really doesn't work in Andhra, where villages are already getting 8 hours of electricity.

Compared to some of the other states in the country such as Bihar and Uttar Pradesh this state has been pretty successful in electrifying most of its villages but has not been able to provide a steady and reliable supply of electricity. This is mainly because the centralized approach of the electricity supply system takes a long time to reach certain regions and even when it does reach these areas there are issues of providing quality and reliable electricity. The technical losses are amplified with the great distances that this energy has to be transmitted. Hence there is a need to rethink the way in which the electrification process is being done and consider alternative ways of providing energy, especially decentralized models and renewable energy systems which are far more sustainable and considerably reduce the impact on the environment.

### **VI. Greenpeace policy recommendations**

To fulfil the “energy access” mandate of the scheme and energy need of rural India –

- Rapid uptake of small scale renewable energy generation (grid connected and off-grid) units in non-remote areas is needed to ensure quality electricity generation and supply at local level
- Mandatory provisions have to be made for involvement of PRI (Panchayat Raj Institutions) for better implementation and sustainability of the scheme
- Provisions need to be made for energy requirement for irrigation and medium and small scale industries
- Last but not the least, embedding the social audit component in the scheme is necessary to enhance accountability of the implementation system

### **Annexure : List of Tables**

**Table 1: Details of villages surveyed in Saran**

Blocks	Saravakota				Pathapatnam			
	Annupuram	Chodasamudram	Chinnagujjuvada	B Kotturu	Chinnamallipuram	Ganguvada	Gopalapuram	Konangi
No of BPL families	40	40	40	40	40	40	40	40
No of APL families	-	-	-	-	-	-	-	-

**Table 2: Electricity supply for beneficiaries under RGGVY and expected supply (in hours)**

Hours of electricity supply (in %)				Hours of supply needed (in %)			
None	6 to 8 hours	8 to 14 hours	14 to 20 hours	6 to 8 hours	8 to 14hours	14 to 20hours	24 hours
4%	1.5%	48%	46.5%	1.5%	2.2%	76.25%	20%

**Table 3: Monthly expenditure on other energy sources**

	Less than INR 50	INR 50 to 100	INR 100 to 300	More than INR 300
% of respondents	91.5%	4.3%	-	-

**Table 4: Electricity received in a month (in days) and status of transformers**

Villages	Annupuram	Chodasamudram	Chinnagujjuvada	B Kotturu	Chinnamallipuram	Ganguvada	Gopalapuram	Konangi
No of days of electricity in a month	20 – 25 days	20 – 25 days	20 – 25 days	25 – 30 days	20 – 25 days	20 – 25 days	15 – 20 days	15 – 20 days
Transformer status	Working	Working	Working	Working	Working	Working	Working	Working

**Table 5: Irrigation methods used by households**

<b>Method of irrigation</b>	Rain fed	Diesel Generator	Sprinkler
<b>No of households</b>	Almost all of them depend on the rains	-	-

**Table 6: Monthly spending on irrigation by households**

	<b>No spending</b>	<b>Less than INR 300</b>	<b>More than INR 300</b>
<b>% of households</b>	All	-	-

**Table 7: Knowledge on source of electricity generation**

	Don't know	Coal	Water	Renewable Energy	Diesel	Nuclear
<b>No of respondents</b>	28	33	259	-	-	-

## References

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