

# **Status of Rural Electrification in Madhya Pradesh**

Working Paper II

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## Preface

The economy of a developing country/state depends on growth in industry, agriculture, service, information & technology and infrastructure sector. The major input required for the growth of these sectors is power or electricity. Power also plays an important role in social sectors such as health and education. At present power has become an essential requirement for all walks of the life. Under Bharat Nirman, electrification of all villages and all BPL households is pledged to achieve by 2009. The goals are to be attained through implementation of Rajiv Gandhi Grameen Vidyutikaran Yojana

Poverty, at present, is seen as multifaceted. The non-access of facilities such as electricity, education, health and drinking water etc., are being considered as components/causes of poverty. Thus an attempt has been made by Poverty Monitoring and Policy Support Unit to analyse the status of electrification in the state based on 2001 census data.

The data is analysed by using various parameters such as size of village, percentage of electrified households in the village etc. To know about the present scenario/status of electrification the data can be updated at village level and can be monitored efficiently and effectively. The present status of electrification of villages and households is also provided in annexure II to VIII for convenience of user of this report.

I hope that this paper may provide inputs to planners to prepare the strategy to achieve the goals at various levels and to provide electricity to more number of villages and households in more economical way though data used is not latest.

I hope that in future PMPSU will come up with more working papers on the issues which concern most to the public of state.

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## **Status of Rural Electrification in Madhya Pradesh**

The economy of a developing country depends on growth in industry, agriculture, service, information & technology and infrastructure sector. The major input required for the growth of these sectors is power or electricity. Power also plays an important role in social sectors such as health and education. At present power has become an essential requirement for all walks of the life.

Poverty, at present, is seen as multifaceted. The non-access of facilities such as electricity, education, health and drinking water etc., are being considered as components/causes of poverty.

Under Bharat Nirman, electrification of all villages and all BPL households is pledged to achieve by 2009. The goals are to be attained through implementation of Rajiv Gandhi Grameen Vidyutikaran Yojana.

In the present document an attempt is made to assess the situation of rural electrification in the state of Madhya Pradesh based on 2001 census data. The data is analysed by using various parameters such as size of village, percentage of electrified households in the village etc. To know about the present scenario/status of electrification the data can be updated at village level and can be monitored efficiently and effectively.

A village was considered to be electrified if the electricity is being used within its revenue area for any purpose whatsoever prior to October 1997. After October 1997, the definition of electrified village was modified and it stated that a village should be classified as electrified if the electricity is being used in the inhabited locality, within its revenue area for any purpose whatsoever. These two definitions of electrified village were so vague that if even one household uses electricity or within inhabited locality electricity used for any purpose irrespective of number of users exist in the village than village used to consider as electrified.

In reality, the electrification of villages, which had been carried out as per definitions stated above, did not serve any purpose and did not contributed to any betterment of rural people who constitute more than 70 percent of total population.

A sensible and meaningful definition of Electrified Village which is applicable from 2005 states:

"A village is termed as electrified provided

- a. Number of households electrified should be at least 10% of the total number of households in the village.
- b. Electricity is provided to public places like schools, panchayat offices, health centres, dispensaries, community centres, etc. and
- c. Basic infrastructure such as distribution transformers and distribution lines are provided in the inhabited locality as well as the dalit basti/hamlet where it exists. (For electrification through non-conventional energy sources a distribution transformer may not be necessary)"

With implementation of this definition, the number of un-electrified villages has increased. To judge the ground situation, the data of Census of India, 2001, which provides the data on source of lighting (i.e. electricity, kerosene, solar energy, other oils, any other as source of lighting) used at household level by villages, can be used.

From 2001 census data, one can estimate the number of un-electrified villages which does not meet the criterion of at least 10 % of total number of households electrified in the village. This estimated number of un-electrified villages is likely to increase if all the three criteria are applied.

In following paragraphs, an attempt has been made to analyse the situation of electrification in term of villages and households in the state of Madhya Pradesh.

In Madhya Pradesh, out of 52,074 villages there were 4949 villages where none of the households had the access to electricity and 3,036 villages having less than 10% of households using electricity. Thus as per present definition, in 2001, there were 7985 un-electrified villages in the state accounting for 15.33% of total villages.

Analysing the distribution of un-electrified villages across the regions, it is found that Vindhya region of the state alone accounts for 33.46 percent of total un-electrified villages of the state. It is followed by Northern (18.99 %), South (16.56 %), Malwa (11.92 %), Central (11.85 %) and South Western (7.23 %). More than 52 percent of un-electrified villages are located in Vindhya and Northern region of the state (Table.1). 8.70 percent of villages of Malwa region are un-electrified villages which is lowest among all the region of the state. Vindhya and Northern region has 24.63 and 22.35 percent of villages which are un-electrified. (Table.1)

**Table.1: Region-wise Estimated Number of Un-electrified villages based on 2001 Census**

S.No.	State	Total Inhabited villages	Number of Un-electrified Villages			% of Un-electrified Villages	Per cent share of Un-electrified Villages
			With None of the household	Having less than 10% of the household	Total		
			Using electricity as source of lighting				
1.	Central	7550	629	317	946	12.53	11.85
2.	Malwa	10941	599	353	952	8.70	11.92
3.	Northern	6784	955	561	1516	22.35	18.99
4.	South	10217	894	428	1322	12.94	16.56
5.	South Western	5725	449	128	577	10.08	7.23
6.	Vindhya	10857	1423	1249	2672	24.61	33.46
	Madhya Pradesh	52066	4949	3036	7985	15.33	100.00

It is noteworthy that as per 2001 census out of 45 districts of the state none of the district was fully electrified. There are 9 districts each, where less than 5 percent and between 5 – 10 percent of villages was un-electrified in 2001 as shown in Table 2. Bhind district has highest proportion (42.07 %) of un-electrified villages, which are still to be electrified. District-wise Estimated Number of Un-electrified villages based on 2001 Census is given in Annex-1.

**Table.2: Distribution of the Districts by Percentage of Un-electrified Villages as per 2001 Census**

Percentage of Un-electrified Villages	No. of Districts	Percentage Distribution
Nil	-	
<5	9	20.00
5-10	9	20.00
11-20	14	31.11
21-30	7	15.56
31-40	5	11.11
41-50	1	2.22
All	45	100

**Table.3: Distribution of the Districts by Number of Un-electrified Villages as per 2001 Census**

Number of Villages Un-electrified	No. of Districts	Percentage Distribution	Average no. of un-electrified Villages	Number of Villages Un-electrified	No. of Districts	Percentage Distribution	Average no. of un-electrified Villages
Nil	0	0	0	76-100	2	4.44	88
<10	0	0.00	0.0	101-150	5	11.11	130
11-20	2	4.44	17	151-200	6	13.33	175
21-30	3	6.67	23	201-300	8	17.78	246
31-40	1	2.22	35	301-400	6	13.33	332
41-50	3	6.67	43	401-500	2	4.44	445
51-75	6	13.33	69	>500	1	2.22	578
				All	45	100	177

There is one district namely Sidhi having 578 un-electrified villages. There are two districts having between 401- 500 of un-electrified villages with an average of 445 villages yet to be electrified per district. Table.3 depicts the distribution of districts by number of un-electrified villages along with average number of un-electrified villages per district in each category.

An attempt has been made to analyze the census data by number of households residing in the village. In Madhya Pradesh, there are 1,850 villages where up to 10 households reside in the village (2.6 percent of total villages). Out of these 1,850 villages, 707 villages are such where none of the households is using electricity as a source of lighting. Adding cumulatively, 3,606 villages have 20 households or less, out of which 1,206 villages have none of the households using electricity as source of light while 51 villages have less than 10 percent households using electricity for lighting. 1,257 villages with less than 20 households account for 15.7 per cent of total un-electrified villages.

The distribution of villages with none of the household using electricity as source of lighting shows that there are more than 1,105 villages which have more than 100 households' population and account for 22.3 percent of such villages. There are only 36 villages with more than 300 households where none of the households is using electricity for lighting (Table.4). From 3,036 villages having less than 10 percent households using electricity as source of lighting, approximately 62 percent villages have population of more than 100 household. As a result an important finding is that the

proportion of un-electrified villages is inversely proportional to number of households in the village i.e. higher the numbers of households lower the proportion of un-electrified villages.

As per 2001 census, the District-wise total number of villages, villages with none of the household using electricity and less than ten percent using electricity for lighting and their distribution by size of village are given in Annex 2 to 4. There are 1,850 villages which have less than 10 households. These villages are likely to be remote villages. This necessitates reviewing the policy of electrification for such villages keeping in view the cost of electrification vis-à-vis coverage of households.

**Table.4: Total Number of Villages, villages with None of household using electricity and less than Ten percent using electricity for lighting and their distribution by Size of Village: 2001 census**

Number of Households in the Village	Total No. of Villages	Distribution of Villages	None of hhd using electricity	Distribution of un-electrified Villages	Less than 10% of hhd using electricity	Distribution of un-electrified Villages	All un-electrified villages	Distribution of un-electrified Villages	Proportion of Villages un-electrified
<=1	264	0.5	117	2.4	0	0.0	117	1.5	44.3
<=2	470	0.9	204	4.1	0	0.0	204	2.6	43.4
<=3	657	1.3	283	5.7	0	0.0	283	3.5	43.1
<=4	852	1.6	364	7.4	0	0.0	364	4.6	42.7
<=5	1030	2.0	426	8.6	0	0.0	426	5.3	41.4
6-10	820	1.6	276	5.6	0	0.0	276	3.5	33.7
11-20	1756	3.4	504	10.2	51	1.7	555	7.0	31.6
<b>Up to 20</b>	<b>3606</b>	<b>6.9</b>	<b>1206</b>	<b>24.4</b>	<b>51</b>	<b>1.7</b>	<b>1257</b>	<b>15.7</b>	<b>34.9</b>
21-50	7196	13.8	1301	26.3	325	10.7	1626	20.4	22.6
51-100	12899	24.8	1337	27.0	777	25.6	2114	26.5	16.4
101-150	9771	18.8	639	12.9	691	22.8	1330	16.7	13.6
151-200	6077	11.7	266	5.4	452	14.9	718	9.0	11.8
201-300	6483	12.4	164	3.3	456	15.0	620	7.8	9.6
301-500	4090	7.9	33	0.7	218	7.2	251	3.1	6.1
>500	1952	3.7	3	0.1	66	2.2	69	0.9	3.5
All	52074	100.0	4949	100.0	3036	100.0	7985	100.0	15.3

National Sample Survey in its 58<sup>th</sup> round (July – December 2002) surveyed the village facilities such as electricity, drinking water, drainage system etc. and the definition followed for the survey regarding availability of electricity is as follow:

"Where electricity was available in the village for all purposes, the village was categorized as having electricity for any combination of purpose, even if the economic condition of the village was so poor that not a single household had actually obtained a connection in order to use electricity for any purpose. But a village in which power supply had ceased to exist in spite of electricity poles, wiring, etc., being available for last ten years or so was treated as not having the facility. Thus, to categorize the village as having electricity available for any purpose, only the existing and functional facility was considered. Villages where electricity could be used only by hooking electricity from the main electric line outside the village were not categorized as having electricity".

Based on this definition the NSSO survey found that, in the year 2002, 94.2% of villages of Madhya Pradesh. (See Table.5). NSSO data further reveals that among villages with electricity, 16% reported that electricity was available for household purposes only, 2.1% had electricity for street lights only and 0.8% reported availability for industrial purposes only. Finally, nearly 79.2%

of the villages which had the facility of electricity reported that it was available for more than one purpose. The availability of street light to 2.1 percent of electrified villages indicate that the number of un-electrified villages could be much more than the estimated number of 7,985 as on March 2001. NSSO data reveals that the electrification level of villages is much better than national level.

Table.5: Number of villages having electricity connection per thousand, and their distribution by purpose of availability, for each State/UT

State/UT	Number of villages having electricity per 1000 villages	Distribution (per 1000) of villages having electricity by purpose of availability of electricity						
		Street lights only	Household use only	Agricultural purpose only	Industrial purpose only	Two or more of the purposes	Not recorded	All
1	2	3	4	5	6	7	8	9
Madhya Pradesh	942	21	160	-	8	792	-	1000
<b>All India</b>	<b>776</b>	<b>23</b>	<b>236</b>	<b>29</b>	<b>16</b>	<b>679</b>	<b>16</b>	<b>1000</b>

\* Means that electricity was available in all the surveyed villages in this State/UT.

**\*\*A note of caution:** It may be noted, firstly, that in some small States and UTs, only 8 villages could be allotted for survey. Secondly, the proportion of villages having the facility is often low, say, 100 or 200 per 1000. This means that even if 40-80 villages are surveyed, only 5 or 10 may have the facility. Then the *break-up* of "1000 villages" *having a particular facility by type* could be based on only 5-10 villages. Extreme caution, therefore, is needed in using the estimates of break-up of villages having a facility by type of facility, particularly for the small States and UTs.

Source: Report on Village facilities, NSS 58<sup>th</sup> Round (July-December 2002), Report No. 487, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India, December 2003.



## Un-electrified Households

The estimated number of un-electrified households' not using electricity for lighting purposes in Madhya Pradesh works out to be more than 3 million according to 2001 census. As a result 37.68 percent of the total households in the state did not have access to electricity in 2001. Highest proportion of un-electrified households (59.39 %) are residing in Vindhya region followed by Northern and Southern regions with 46 % and 38.02 % un-electrified households. Malwa region has least proportion (20.51 %) of un-electrified households among all the regions of the state as per 2001 census. Region wise position of un-electrified households as per 2001 census is illustrated below in table 6.

**Table.6: Region-wise Estimated Number of Un-electrified Households based on 2001 Census**

Region	Total number of households	Number of un-electrified households	Proportion of un-electrified households	Percentage distribution of un-electrified households
Central	17,16,612	352077	20.51	11.5
Malwa	10,00,359	245457	24.54	8.0
Northern	10,00,162	324895	32.48	10.6
South	15,82,779	601706	38.02	19.7
South Western	10,49,137	482649	46.00	15.8
Vindhya	17,75,746	1054587	59.39	34.4
Madhya Pradesh	81,24,795	3061371	37.68	100.0

Panna has the largest proportion i.e. 71.35 % of un-electrified households followed by Sidhi (68.53%). Shahdol, Bhind, Dindori and Chhatarpur have proportion of un-electrified households more than 60 percent. Rewa, Mandla, Morena, Jhabua, Tikamgarh, and Umariya have between 50 % and 60 % of un-electrified households. Districts having 40% to 50% of un-electrified households are Sheopur, Damoh, Katni, Satna, Shivpuri and Balaghat. The group of districts having 30% to 40% of un-electrified households includes Betul, Jabalpur, Seoni, Guna, Vidisha, Sagar and Barwani district. Indore is having lowest percentage of un-electrified households i.e. 10.21 percent followed by Shajapur with 10.69 percent. (See Table.7).

Table.7: Number of Un-electrified Households by Districts in Madhya Pradesh as per 2001 Census

State	Total Number of Households	Number of un-electrified Households	Percentage of Un-electrified households	Percentage Share in Total Un-electrified households
Sheopur *	83231	33409	40.14	1.09
Morena	188039	103291	54.93	3.37
Bhind	167692	113242	67.53	3.70
Gwalior	103791	29504	28.43	0.96
Datia	84941	31910	37.57	1.04
Shivpuri	205412	92164	44.87	3.01
Guna	216031	79129	36.63	2.58
Tikamgarh	179853	100035	55.62	3.27
Chhatarpur	210133	131284	62.48	4.29
Panna	152624	108899	71.35	3.56
Sagar	273645	105346	38.50	3.44
Damoh	185483	74913	40.39	2.45
Satna	284031	122473	43.12	4.00
Rewa	321789	172412	53.58	5.63
Umaria *	89667	51448	57.38	1.68
Shahdol	249682	170698	68.37	5.58
Sidhi	287967	197338	68.53	6.45
Neemuch *	100540	11689	11.63	0.38
Mandsaur	175866	27070	15.39	0.88
Ratlam	152614	37511	24.58	1.23
Ujjain	179500	24769	13.80	0.81
Shajapur	179240	19155	10.69	0.63
Dewas	160433	21688	13.52	0.71
Jhabua	213879	118335	55.33	3.87
Dhar	251447	49395	19.64	1.61
Indore	122385	12497	10.21	0.41
West Nimar	225874	39589	17.53	1.29
Barwani *	143701	56686	39.45	1.85
East Nimar	229797	47486	20.66	1.55
Rajgarh	180708	29968	16.58	0.98
Vidisha	166072	63191	38.05	2.06
Bhopal	62648	8145	13.00	0.27
Sehore	150511	26006	17.28	0.85
Raisen	161803	47294	29.23	1.54
Betul	199707	59937	30.01	1.96
Harda *	64256	8350	12.99	0.27
Hoshangabad	137024	33409	24.38	1.09
Katni *	179781	77011	42.84	2.52
Jabalpur	200374	60198	30.04	1.97
Narsimhapur	151741	42546	28.04	1.39
Dindori *	120484	78481	65.14	2.56
Mandla	173559	95193	54.85	3.11
Chhindwara	268347	47543	17.72	1.55
Seoni	211177	75477	35.74	2.47
Balaghat	277316	125257	45.17	4.09
Madhya Pradesh	8124795	3061371	37.68	100.0

Of the total un-electrified households population around 57 percent live in 14 districts namely Shivpuri, Mandla, Tikamgarh, Morena, Sagar, Panna, Bhind, Jhabua, Satna, Balaghat, Chhatarpur, Shahdol, Rewa and Sidhi. The districts of Bhopal, Harda, Neemuch, Indore, Shajapur, Dewas,

Ujjain, Sehore, Mandsaur, Gwalior and Rajgarh having less than one percent of total un-electrified households of the state. The Number of un-electrified households by district is presented in Table.7.

After estimating the number of un-electrified households, the next step would be to study the concentration of households by type of villages where they reside. This is done by classifying the villages by number of households residing therein. Table.8 reveals that 18.12 percent of total households were residing in the villages having more than 500 households accounting for 13.89 per cent of total un-electrified households. Villages having 201 to 500 households accounted for 38.4 percent of total households and 39.37 percent of un-electrified households in the state. It is worth noting that villages having 20 households or less accounted for 0.45 percent of total households, 0.38 percent of electrified households and 0.57 percent of un-electrified households of the country. The number of un-electrified household's and their distribution for the state by Size of Village according to 2001 census is given in Table.8. It is worth observing that the proportion of un-electrified households decreases with the size of village. There are around 29 percent un-electrified households in villages with 500 or more households. The proportion of un-electrified households in villages with 201-300 and 301-500 households are 39.45 and 37.77 percent respectively.

Table.8: Distribution of Total Households, Electrified Households and Un-electrified Households by Size of Village: 2001 census

Number of Households in the Village	Total No. of households	Distribution of Households	Electrified households	Distribution of electrified households	Un-electrified households	Distribution of un-electrified Households	Proportion of un-electrified households (%)
<=1	264	0.00	147	0.00	117	0.00	44.32
<=2	676	0.01	367	0.01	309	0.01	45.71
<=3	1237	0.02	653	0.01	584	0.02	47.21
<=4	2017	0.02	1048	0.02	969	0.03	48.04
<=5	2907	0.04	1507	0.03	1400	0.05	48.16
6-10	6508	0.08	3331	0.07	3177	0.10	48.82
11-20	27516	0.34	14630	0.29	12886	0.42	46.83
<b>Up to 20</b>	<b>36931</b>	<b>0.45</b>	<b>19468</b>	<b>0.38</b>	<b>17463</b>	<b>0.57</b>	<b>47.29</b>
21-50	260016	3.20	150517	2.97	109499	3.58	42.11
51-100	967043	11.90	578179	11.42	388864	12.70	40.21
101-150	1213609	14.94	725873	14.34	487736	15.93	40.19
151-200	1054285	12.98	627144	12.39	427141	13.95	40.51
201-300	1578759	19.43	955955	18.88	622804	20.34	39.45
301-500	1542296	18.98	959758	18.95	582538	19.03	37.77
>500	1471856	18.12	1046530	20.67	425326	13.89	28.90
All	8124795	100.00	5063424	100.00	3061371	100.00	37.68

While examining the status of un-electrified households at the district level, it was found that out of 45 districts, 12 districts with more than 50 percent of un-electrified households accounted for more than 47 percent of total un-electrified households (around 1.44 million households). There are 14 districts with 30 to 50 percent of un-electrified households which had 34.53 percent of total un-electrified households i.e. 1.06 million of un-electrified households.

Districts with un-electrified household ranging between 10 and 20 percent are 13 in number having 0.33 million un-electrified household. (See Table.9)

**Table.9: Distribution of Districts by percentage of Un-electrified households as per 2001 Census**

Percentage of Un-electrified households	No. of Districts	Percentage Distribution	Number of un-electrified households	Percentage Distribution
10-20	13	28.89	325864	10.64
20-30	6	13.33	237750	7.77
30-40	8	17.78	531874	17.37
40-50	6	13.33	525227	17.16
50-60	6	13.33	640714	20.93
60-70	5	11.11	691043	22.57
70-80	1	2.22	108899	3.56
All	45	100.00	3061371	100.00

The distribution of un-electrified households by type of villages (based on percentage of electrified households in the village) revealed that 10.78 percent of un-electrified households belong to villages where none of the households is using electricity for lighting and 14.69 percent of them were living in those villages where less than ten percent households are using electricity for lighting (Table.10). An important finding is that 25.47 percent of un-electrified households live in un-electrified villages and remaining 74.53 per cent un-electrified households belong to electrified villages. Within electrified villages, (where more than 10 % and up to 50 percent households are using electricity for lighting) a majority of un-electrified households (60 %) are living and remaining 40 per cent of un-electrified households reside in villages where more than 50 percent households were using electricity for lighting.

**Table.10: Number of Un-electrified Households and their Distribution by Type of Villages: Census 2001**

Type of Village (based on % of Households Electrified)	Total		Un-electrified Households		
	Number of Households	Percent Distribution of Households	Number of Households	Percent Distribution of Households	Percent of household in each class
None	330058	4.06	330058	10.78	100.00
1-10	471735	5.81	449850	14.69	95.36
10-20	457215	5.63	388118	12.68	84.89
21-30	472191	5.81	353447	11.55	74.85
31-40	483511	5.95	314088	10.26	64.96
41-50	570057	7.02	312370	10.20	54.80
51-60	590113	7.26	264397	8.64	44.80
61-70	670218	8.25	233939	7.64	34.90
71-80	774708	9.54	192163	6.28	24.80
81-90	1008197	12.41	148480	4.85	14.73
91-95	694746	8.55	50758	1.66	7.31
>95	1602046	19.72	23703	0.77	1.48
Total	8124795	100.00	3061371	100.00	37.68

The sixth quinquennial survey on Household Consumer expenditure conducted during NSS 55th round (July 1999- June 2000) collected data relating to primary source of energy used for cooking and lighting. The similar data on primary source of energy used for cooking and lighting was also collected during NSS 61<sup>st</sup> Round (July 2004 – June 2005). The sources of energy used for lighting by the households in India are kerosene, gas, candle, electricity, other oil, etc. Of these kerosene and electricity are prominent. At national level data indicates that 99% of the households

are using either kerosene or electricity in rural areas. It was revealed in both the rounds. The frequencies of use of these two sources in Madhya Pradesh and all-India are given in Table.11 for rural areas.

It is observed that in rural areas of the state, 62.5 percent of the households were using electricity for lighting during July 1999 - June 2000 against the national level of 48.4 percent of rural households were using electricity for lighting during same period 2000. The results of 61st Round (July 2004- June2005) show a significant improvement in number of electrified households in the state. The growth in electrified households in the state was lower than the growth at national level.

**Table.11: Per 1000 distribution of households by primary source of energy used for lighting for each major States: All India -Rural**

States	61st Round (July 2004- June2005)				55-th Round (July 1999- June2000)			
	Kerosene	Electricity	Other	Total	Kerosene	Electricity	Other	Total
Madhya Pradesh	300	692	8	1000	369	625	6	1000
All-India	444	549	7	1000	506	484	10	1000

**(Source: NSS Report No. 464: Energy Used by Indian Households, 1999-2000, Page 23-24 and NSS Report No. 511: Energy Sources of Indian Households for Cooking and Lighting, 2004-05, Page 14)**

### Summary:

1. The number of un-electrified villages in the state is 7,985 of which 4,949 villages do not have access to electricity and remaining 3036 villages having access to electricity but the percentage of households using electricity are below the prescribed limit to be classified as electrified village.
2. State has 15.33 percent of its villages as un-electrified villages which is lower than the national average of 38.41 per cent.
3. Vindhya Region of the state has highest proportion of un-electrified villages i.e. 33.46 percent.
4. The proportion of un-electrified villages is inversely proportional to number of households in the village i.e. higher the numbers of households lower the proportion of un-electrified villages.
5. There are 1,850 villages which have less than 10 households. Of these 702 are un-electrified. Electrification of these villages necessitates reviewing the policy of electrification keeping in view the cost of electrification vis-à-vis coverage of households.
6. In the state 16.0% of villages with electricity reported that electricity was available for household purposes only, 2.1% had electricity for street lights only and 0.8% reported availability for industrial purposes only as per NSSO data of 55-th Round (July 1999- June2000). This indicates that the number of un-electrified villages could be much more than the estimated number of 7985 as per current definition.
7. The estimated number of un-electrified households not using electricity for lighting purposes in the state works out to be 3.06 million according to 2001 census.
8. 62.5% households of state in rural areas was using electricity for lighting. It is higher than all India level of 48.4 percent of rural households were using electricity for lighting during July 1999 - June 2000.

9. The results of 61st Round (July 2004- June2005) show a significant improvement in number of electrified households in the states. Though growth in electrified households in the state was lower than the growth at national level.
10. To cover the goals set under Rajiv Gandhi Grameen Vidyutikaran Yojana, prioritization of rural electrification works at various levels is required to provide electricity to more number of villages and households in more economical way.