

CURRENT STATUS OF RURAL ELECTRIFICATION AND ELECTRICITY SERVICE DELIVERY IN RURAL AREAS OF NAGALAND

I. Status of Village Electrification in Nagaland:

As on 31st August 2013, 382 villages were yet to be electrified in the state of Nagaland, out of a total of 1278 villages in the state, as per the 2001 census.

Table 1: Status of Village Electrification in Nagaland¹

States/UTs	Total inhabited Villages as per 2001 census	Villages electrified as on 31/03/2013 as per new definition (Provisional)		Cumulative achievement as on 31/08/2013 as per new definition	%age of villages electrified as on 31/08/2013	Unelectrified villages as on 31/08/2013 (V)
		No.	%			
Nagaland	1278	896	70.1	896	70.1	382

Source: Central Electricity Authority, 31.08.2013

Therefore the total number of electrified villages in Nagaland accounts to 70.1 percent.

The following table gives the status of electrification of the villages- district and block-wise which are covered under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme.

Table 2: District and respective Block-wise status of Village Electrification in Nagaland

District	Block	Villages covered under RGGVY	No. of Electrified Villages (RGGVY)	% Villages Electrified	No. of Unelectrified Villages	% Unelectrified Villages
Dimapur	Dhansiripar	40	37	92.5	3	7.5
	Kuhoboto	41	34	82.9	7	17.1
	Medziphema	72	50	69.4	22	30.6
	Niuland	63	52	82.5	11	17.5
	TOTAL OF ALL BLOCKS	216	173	80.1	43	19.9
Kiphire	Kiphire	28	28	100.0	0	0.0
	Pungro	23	23	100.0	0	0.0
	Sitimi	38	38	100.0	0	0.0
	TOTAL OF ALL BLOCKS	89	89	100.0	0	0.0
Kohima	Chiephobozou	25	24	96.0	1	4.0
	Jakhama	10	10	100.0	0	0.0
	Kezocha	9	9	100.0	0	0.0
	Kohima	3	2	66.7	1	33.3
	Sechu	12	12	100.0	0	0.0
	Tseminyu	35	31	88.6	4	11.4
TOTAL OF ALL BLOCKS	94	88	93.6	6	6.4	
Longleng	Longleng	19	19	100.0	0	0.0
	Tamlu	16	16	100.0	0	0.0
	TOTAL OF ALL BLOCKS	35	35	100.0	0	0.0
Mokokchung	Changtongya	32	21	65.6	11	34.4
	Kubolong	8	8	100.0	0	0.0
	Longchem	14	6	42.9	8	57.1
	Mangkolemba	30	24	80.0	6	20.0
	Ongpangkong(N & S)	18	8	44.4	10	55.6
TOTAL OF ALL BLOCKS	102	67	65.7	35	34.3	

¹ CEA Monthly Report available at http://www.cea.nic.in/reports/monthly/dpd_div_rep/village_electrification.pdf

District	Block	Villages covered under RGGVY	No. of Electrified Villages (RGGVY)	% Villages Electrified	No. of Unelectrified Villages	% Unelectrified Villages
Mon	Chen	22	20	90.9	2	9.1
	Mon	21	18	85.7	3	14.3
	Phomching	13	11	84.6	2	15.4
	Tizit	22	11	50.0	11	50.0
	Tobu	18	11	61.1	7	38.9
	Wakching	13	11	84.6	2	15.4
	TOTAL OF ALL BLOCKS		109	82	75.2	27
Peren	Jalukie	40	33	82.5	7	17.5
	Peren	17	14	82.4	3	17.6
	Tening	29	29	100.0	0	0.0
	TOTAL OF ALL BLOCKS	86	76	88.4	10	11.6
Tuensang	Chare	12	11	91.7	1	8.3
	Chessore	10	7	70.0	3	30.0
	Longkhim	12	12	100.0	0	0.0
	Noklak	22	21	95.5	1	4.5
	Noksen	12	11	91.7	1	8.3
	Sangsangnyu	26	22	84.6	4	15.4
	Shamator	16	14	87.5	2	12.5
	Thonoknyu	14	5	35.7	9	64.3
	TOTAL OF ALL BLOCKS	124	103	83.1	21	16.9
Wokha	Bhandari	46	43	93.5	3	6.5
	Chukitong	17	16	94.1	1	5.9
	Sanis	27	25	92.6	2	7.4
	Wokha	10	9	90.0	1	10.0
	Wozhuro Ralan	28	22	78.6	6	21.4
TOTAL OF ALL BLOCKS	128	115	89.8	13	10.2	

Source: Data compiled from RGGVY website²

II. Status of Household Electrification in Nagaland:

The Census of India 2011, indicates that close to 21 percent of Nagaland rural households continue to depend on Kerosene for lighting whereas majority have access to grid electricity.

The table and figure below presents a comprehensive scenario of the sources of lighting in the state, which is as per the Government of India Census, 2011.

Table 3: Sources of Lighting in households of Nagaland

District	Total No. of Households	Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting	Electrified		Unelectrified	
								No.	%	No.	%
Mon	35,804	9,273	23,836	126	166	652	1,751	9,399	26	26,405	74
Mokokchung	30,016	28,032	1,728	99	61	46	50	28,131	94	1,885	6
Zunheboto	25,388	24,046	1,001	123	34	22	162	24,169	95	1,219	5
Wokha	27,028	19,111	6,872	161	100	519	265	19,272	71	7,756	29
Dimapur	36,034	31,571	3,899	48	82	162	272	31,619	88	4,415	12
Phek	32,889	31,256	1,027	16	42	370	178	31,272	95	1,617	5
Tuensang	32,185	18,446	10,529	119	135	1,960	996	18,565	58	13,620	42
Longleng	9,896	4,994	4,592	37	3	105	165	5,031	51	4,865	49
Kiphire	13,400	11,076	1,549	103	52	330	290	11,179	83	2,221	17
Kohima	26,421	25,307	919	32	68	39	56	25,339	96	1,082	4

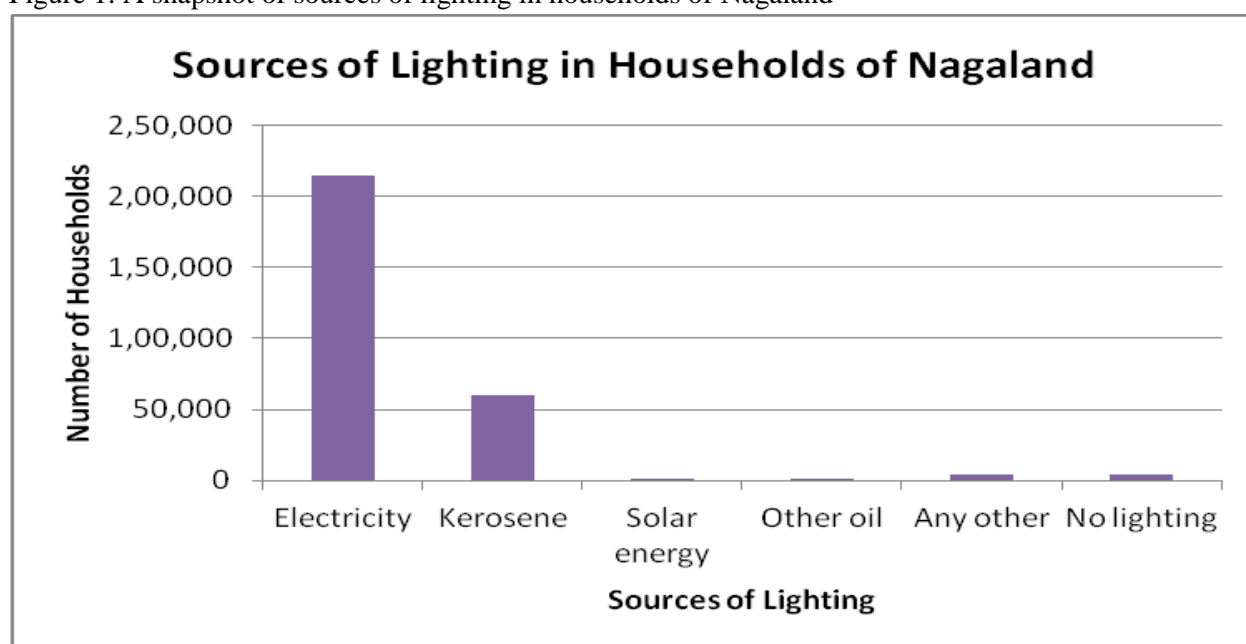
² Rajiv Gandhi Grameen Vidyutikaran Yojana, available at <http://rggv.gov.in/rggv/rggvportal/index.html>

Peren	15,850	11,207	4,154	299	40	104	46	11,506	73	4,344	27
Total	2,84,911	2,14,319	60,106	1,163	783	4,309	4,231	2,15,482	76	69,429	24

Source: Census of India 2011.

As can be seen from the above table, a very few number of districts have relatively high percent of un-electrified households, while districts which are in and around the state capital have very lower level of un-electrified households which shows a much better situation than other states discussed.

Figure 1: A snapshot of sources of lighting in households of Nagaland



Source: Census of India, 2011

III. Key Sources of Energy for Cooking and Heating in households of Nagaland

As is the case with the rest of India, Nagaland also has a very poor penetration of clean sources of energy for meeting the cooking and heating requirements of its communities.

Only 7 percent of Nagaland's population has access to modern and relatively clean sources of energy for cooking and heating requirements, mainly LPG, Electricity and bio-gas plants.

So in effect, close to 93 percent of its population depend on firewood and other related sources of energy for meeting their cooking and heating requirements.

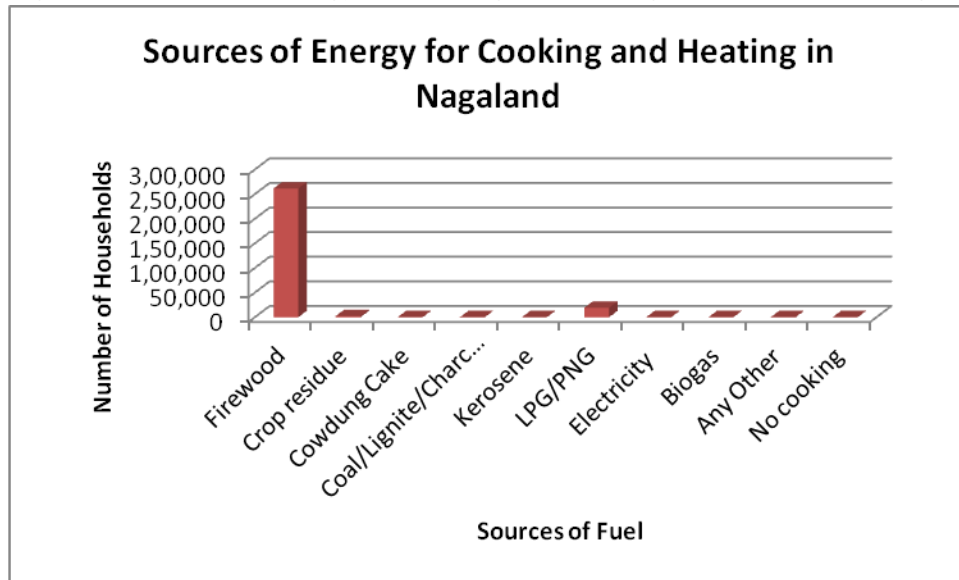
The following table depicts the situation of energy sources for Nagaland.

Table 4: Sources of Energy for cooking and heating in households of Nagaland

Total No. of HouseHolds	Firewood	Crop residue	Cowdung Cake	Coal/Lignite/Charcoal	Kerosene	LPG/PNG	Electricity	Biogas	Any Other	No cooking
2,84,911	2,61,537	2,294	251	93	407	19,136	379	187	103	524

Source: Census of India 2011

Figure 2: Sources of Energy for cooking and heating in households of Nagaland



Source: Census 2011 data

IV. Status of Assets availability in households of Nagaland:

As can be read from the table below almost 95% of the households have access to personal assets and require electricity to operate them.

The table and figure below presents a comprehensive scenario of the assets in rural households in the state, which is as per the Government of India Census, 2011

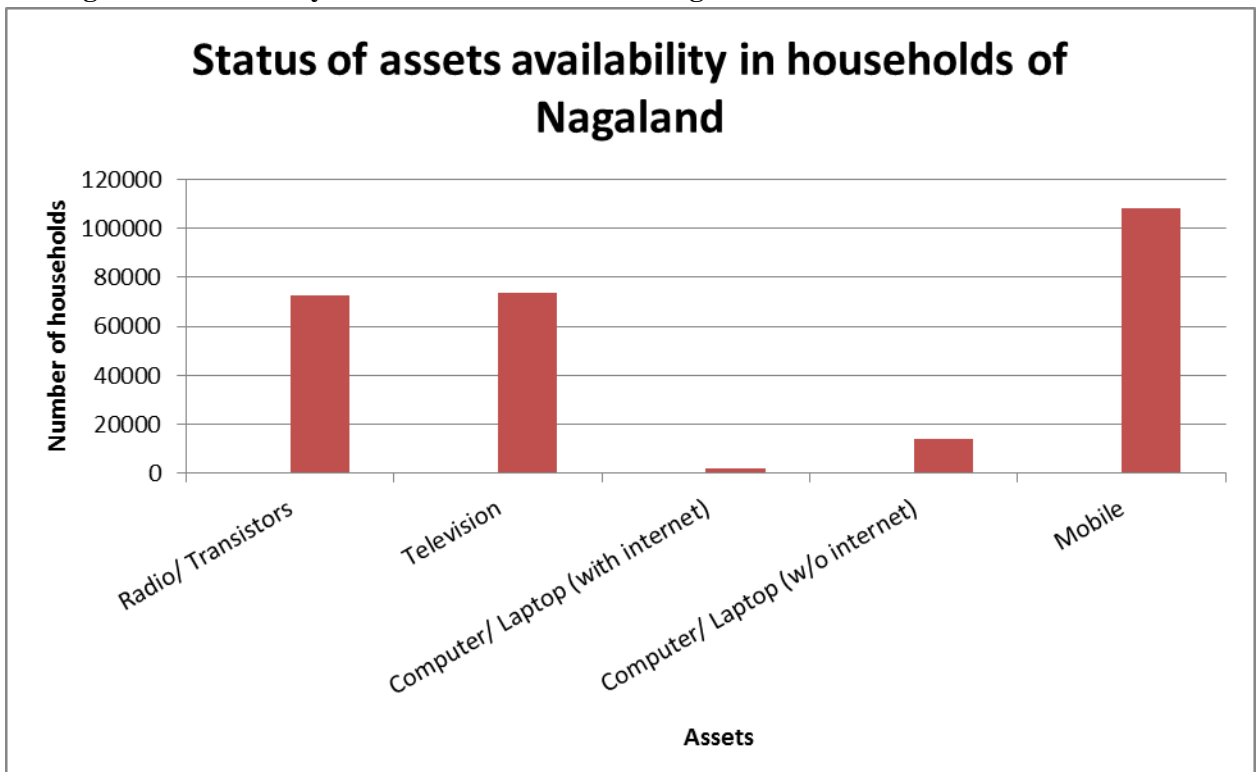
Table 5: Availability of assets in households of Nagaland

District	Total No. of Households	Radio/ Transistors	Television	Computer/ Laptop		Mobile
				With Internet	W/o Internet	
Mon	35,804	5,660	2,857	75	2,188	8,136
Mokokchung	30,016	9,531	11,819	162	939	12,075
Zunheboto	25,388	7,002	6,752	135	1,397	10,571
Wokha	27,028	10,962	6,704	96	1,058	9,210
Dimapur	36,034	7,954	20,030	953	2,921	22,870
Phek	32,889	8,367	6,875	109	1,092	12,163
Tuensang	32,185	5,498	3,969	57	1,497	8,272
Longleng	9,896	1,469	929	12	443	2,502
Kiphire	13,400	2,165	863	18	322	2,686
Kohima	26,421	11,400	9,810	247	1,376	14,497
Peren	15,850	2,716	2,895	54	802	5,147
Total	284,911	72,724	73,503	1,918	14,035	108,129

Source: Census of India 2011

The table indicates that maximum households have mobile phones, television and radio/transistors in high numbers.

Figure 3: Availability of assets in households of Nagaland



Source: Census 2011 data

V. Status of Electricity Supply in Nagaland:

In the 2011-12 Nagaland faced a shortage of electricity supply to the tune of 156 Million units, which translates to a short fall in supply in relation to the demand by 25.4 percent. The short fall in electricity supply to meet the peak electricity demand was around 39.9 percent in the same year.

This has been the trend in the previous years too

The following table gives an overview of the electricity demand and supply situation of Nagaland in the year 2011-12

Table 6: Electricity Demand Vs. Supply Situation in Nagaland (2011-12)

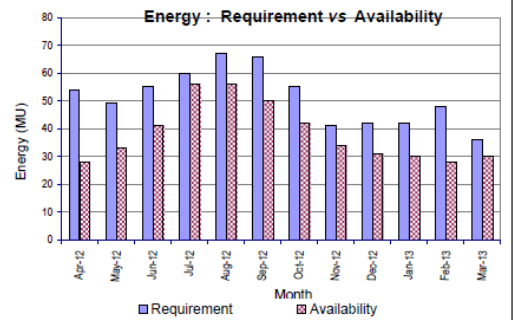
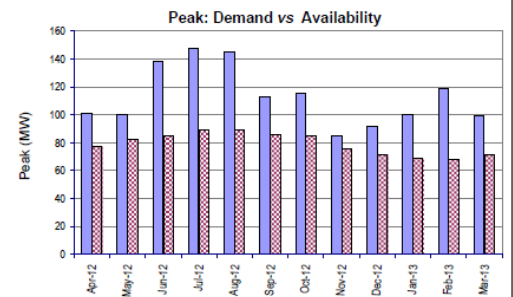
State / Region	Energy				Peak			
	Requirement	Availability	Surplus(+)/Deficit (-)		Requirement	Availability	Surplus(+)/Deficit (-)	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
Nagaland	615	459	-156	-25.4	148	89	-59	-39.9

Source: Load Generation Balance Report 2012-13, Central Electricity Authority

Further, the assessment of the Central Electricity Authority on the supply versus demand for electricity for the year 2012-2013, indicates that in some months, the gap between supply and demand could be as high as 31 percent, which could potentially mean that the rural electricity supply would be affected even higher than business as usual.

Table 7: Anticipated Power Supply and Demand for Nagaland for 2012-2013

Month	Peak				Energy			
	Demand	Availa- bility	Surplus(+)/Deficit (-)		Require- ment	Availa- bility	Surplus(+)/Deficit (-)	
	(MW)	(MW)	(MW)	(%)	(MU)	(MU)	(MU)	(%)
Apr-12	101	77	-24	-23.8	54	28	-26	-48.1
May-12	100	82	-18	-18.0	49	33	-16	-32.7
Jun-12	138	85	-53	-38.4	55	41	-14	-25.5
Jul-12	148	89	-59	-39.9	60	56	-4	-6.7
Aug-12	145	89	-56	-38.6	67	56	-11	-16.4
Sep-12	113	86	-27	-23.9	66	50	-16	-24.2
Oct-12	115	85	-30	-26.1	55	42	-13	-23.6
Nov-12	85	76	-9	-10.6	41	34	-7	-17.1
Dec-12	92	71	-21	-22.8	42	31	-11	-26.2
Jan-13	100	69	-31	-31.0	42	30	-12	-28.6
Feb-13	119	68	-51	-42.9	48	28	-20	-41.7
Mar-13	99	71	-28	-28.3	36	30	-6	-16.7
Annual	148	89	-59	-39.9	615	459	-156	-25.4



Source: Load Generation Balance Report – 2012-13, Central Electricity Authority