

## PHYSICAL VERIFICATION REPORT

(Conducted by Dy. Director, Planning on 06<sup>th</sup>, 07<sup>th</sup> & 08<sup>th</sup> September, 2011)

1. Name of Project : Rural Electrification Programme under RGGVY in District Leh
2. Funding Agency : Government of India.
3. Implementing Agency: NHPC
4. Executing Agency : M/S A2Z Maintenance and Engineering Services Pvt. Ltd., Gurgaon & M/S Shyama Power (India) Pvt. Ltd. Gurgaon (Turnkey basis).
5. Year of Sanction : 2007-08
6. Date of Start : October, 2008
7. Date of Completion : March, 2010 (18 Months).
8. Completion likely by : March, 2013

### 9. Need/ Importance of the Project:

The Power supply in Leh district mainly depends on 2x1.5 MW Marcelong HEP, 2x2 MW Stakna HEP in the Kharu block and 8x750 KVA DG sets at Choglamsar which is transmitted to Leh substation at 22 KV voltage level where from it is supplied to rural and urban areas of Leh and Kharu blocks. The Leh 22/11 KV substation is connected to a bank of 8 DG sets of 750 KVA ratings block at 11 KV voltage level. With the existing infrastructure power schedule was fixed for district Leh in such a manner that electricity was supplied to urban areas for 6 hours and to rural areas for 4 hours during a day. Not to speak of the un-electrified homes, even the electrified homes were facing acute shortage of power supply.

The Rajiv Gandhi Grameen Viduyutikaran Yojna (RGGVY) was launched by GoI for electrification of the rural areas of the country especially the partially electrified/ un-electrified villages. Leh district having a widely scattered population with a difficult terrain was also

selected under RGGVY. The scheme is being implemented by REC, GoI through NHPC in the district.

Earlier it was proposed to lay a 220 KV line from Kashmir valley to Leh through Kargil for meeting power requirement of Leh and Kargil districts. However, subsequently it was decided to generate electricity at Leh by establishing a 45- MW Hydro-Electric Project at Nimoo Buzgo and then supply power through a network of 66KV, 11 KV HT/LT transmission system.

#### Scope of Work:

1. Construction of 6 Nos. 66/11 KV sub-stations.
2. Construction of 215 Km, 66 KV line.
3. Construction of 365 Km, 11KV line.
4. Construction of 165 Km, LT line.
5. Installation of 165 Nos. Distribution Transformers.
6. Service connection to 3755 Nos. BPL Households.

#### Benefits of the Project:

- Electrification of un-electrified villages = 35 Nos.
- Electrification of partially-electrified villages = 77 Nos.
- Electrification of un-electrified habitations = 136 Nos.
- Service connection to BPL Households = 3755 Nos.

#### 10. Financial Status of Work:

(Rs. in Crores)

S. No.	Particulars	Ph-1	Ph-2	Total
1.	Project cost (approved by REC of GOI)	210.25	56.20	266.45
2.	Tendered Cost (Contract awarded amount).	261.66	Not yet tendered	--
3.	Revised Cost (yet to be approved by REC of GOI)	359.12	--	--
4.	Funds released by GOI till August 2011	256.37	--	--
5.	Expenditure incurred upto August 2011.	214.73	--	--
6.	Percentage Expenditure against tendered cost.	82%	--	--
7.	Percentage expenditure against revised cost.	60%	--	--

Note: Project cost/ expenditure figures are inclusive of 9% service charges of NHPC but do not include entry tax, other duties and levies as applicable.

## 11. Reasons for escalation in cost of Project:

The ph-1 of the project was sanctioned by REC, Gol for an amount of Rs 210.25 crores and the contract was awarded to the executing agency for an amount of Rs 261.66 crore. However, there was deviation in cost due to changes in individual item quantity on contract sum. The revised cost has been worked out to Rs 359.12 crores. The reasons given by NHPC for revision in cost are: -

- The cost estimate for tendering of work was based on cost data of sub transmission works at 66 KV level of PDD, Govt. of J&K
- At the time of cost estimation, it had been envisaged that the land provided for construction of 66/11 KV sub-stations shall be plain and as such no provision for earth work or any protection work had been provided in the scope of work, whereas, the land provided by the J&K state PDD is of steep gradient and needed heavy earth cutting for its levelling and stone masonry for protection works.
- The routes provided by the PDD in view of the topography/ geology of the area, connectivity of other areas as per the requirement of PDD through HT Lines increased the length of HT and LT lines.
- Increase in number of 25 KV Distribution Transformers as per the requirement of J&K PDD.

The approval of the revised cost sought by NHPC from REC, Gol has not been conveyed as yet.

## 12. Physical Status of Work:

Description	Unit	Target	Achievement	% Ach.
<b>A. 66 KV Line</b>				
Excavation for towers	Nos.	871	761	87%
Concreting for towers	Nos.	871	753	86%
Erection of towers	Nos.	871	514	59%
Line Stringing	Kms.	184.9	53.9	29%
<b>B. HT</b>				
Poles	Nos.	7600/10804*	6241	58%
Line Stringing	Kms	363/572.5*	240.1	42%
<b>C. LT</b>				
Poles	Nos.	4607	2534	55%
Line Stringing	Kms.	200.5/250.85	89.45	36%
<b>D. BPL connections</b>				
Households	Nos.	3755 (3000 <sup>#</sup> )	2290	59%
<b>E. 66/11 KV Sub-Station</b>				
<b>1. Himya</b>				
Excavation	%age	100	100	30%
Concreting	Nos.	10	10	
Erection of Gantries	Nos.	10	0	
<b>2. Kharu</b>				
Excavation	%age	100	100	30%
Concreting	Nos.	16	16	
Erection of Gantries	Nos.	16	0	

Description	Unit	Target	Achievement	% Ach.
3. Leh				
Excavation	%age	100	100	60%
Concreting	Nos.	15	15	
Erection of Gantries	Nos.	15	15	
4. Buzgo				
Excavation	%age	100	100	50%
Concreting	Nos.	12	12	
Erection of Gantries	Nos.	12	0	
5. Alchi				
Excavation	%age	100	100	80%
Concreting	Nos.	14	14	
Erection of Gantries	Nos.	14	14	
6. Khalsi				
Excavation	%age	100	100	50%
Concreting	Nos.	10	10	
Erection of Gantries	Nos.	10	0	

\*As per RCE.

#Actual figure as per survey

### 13. Field Observations:

The rural electrification project is being executed in district Leh by M/S A2Z Maintenance and Engineering Services Pvt. Ltd., Gurgaon & M/S Shyama Power (India) Pvt. Ltd. Gurgaon on turnkey basis under the technical guidance and supervision of NHPC. The Project comprises of five basic components, namely, Construction of 66/11 KV substations, laying of 66 KV transmission lines, laying of 11 KV HT/ LT lines, installation of distribution transformers and providing free BPL connections. Keeping in view the large size of the district and spread of rural electrification works across all habitations of the district, some portions of all the basic components were inspected during the field visit. The observations are as follows: -

- a) Out of 06 substations (66/11 KV) taken up under phase-I, 05 substations located at Kharu, Leh, Bazgo, Alchi and Khalsi were inspected. During the visit, work was found in progress at Khaltsi and Alchi while as work had been stopped in the remaining substations. The work done indicated in the progress report was found commensurable with the work executed on ground. On enquiring about the reason for stoppage of work in the remaining substations, it was informed by the NHPC engineers that they were facing problems of shortage in supply of raw material such as steel gantry, etc. The reason for shortage was reported to be the preparation of faulty DPRs based on which the contract was awarded to the executing agency. The quality of civil and electrical works executed was found satisfactory.
- b) The erected transmission towers 66 KV and conductor lines that had been stringed were visible along the Kargil - Leh Highway from Khalsi to Leh on most of the stretch. Stringing work was also in progress at a location close to Nimo Bazgo Hydro Electric Project. The conductor was being stringed across river Indus. Two special towers having wider base

were erected on top of hills located on either side of Indus. The span of about 500 meters at this location was reported to be one of the longest. The cross-section of the conductor had 37 wires comprising 7 steel wires for providing strength and 30 aluminium wires for carrying electricity.

- c) Four HT feeder lines of 11 KV were running parallel to the Kargil – Leh Highway near Khalsi. The work on these lines was also found satisfactory. The HT lines were also inspected near Leh substation.
- d) In order to inspect the LT lines and BPL connections two villages, namely, Phobrang and Dha were visited.

Village Phobrang which was near the Pangong lake on the Indo-Tibetan border was inspected. Two BPL households were located but only one house of Shm Tsering Dolma was visited because the other BPL house was found locked and the residents were away from home for working in the fields. The BLP house that was visited had been provided the free BPL connection which comprised of electronic meter, electric wire, fuse, socket and one bulb. However, the village had no feeder line since it was too far from the nearest substation. The engineers of NHPC reported that the State Government is planning to provide electricity to this village by setting up a Solar HEP or a Mini HEP, but no work seems to have been executed till date.

Village Dha located on the right bank of Indus near Battalik was also inspected. This village also figured in the list of completed villages available with NHPC. NHPC engineers informed that none of the 20 villages which had been completed by them under the project are being taken over by the state PDD despite the fact that the list was provided to PDD 5 to 6 months back and having been already inspected by NHPC as well as REC. It was also brought to notice that the MoU signed between NHPC and PDD clearly states that the villages that will be completed by NHPC are to be taken over by the state PDD after necessary inspection within 30 days. However, while inspecting village Dha, one electric pole erected near house of Sh. Tsering Norbu was found un-stringed. Moreover, the villagers complained that NHPC had not paid them wages for transporting and erecting the electric poles in their village. On inquiring about the free BPL connections, the villagers were totally unaware and informed that connections had not been provided to BPL households as yet. Two BPL houses of Sh. Tsering Norbu and Sh. Gang Sonum were inspected and it was found that they only had the solar lamps which the government had provided and the free electricity due to them has not been provided yet. These two persons also produced their BPL ration tickets to prove what they claimed.

During the course of discussion with the engineers of the NHPC and A2Z Construction Company it was found that free connections are being provided to households possessing BPL ration cards after proper authentication from the village heads. However, the households

possessing an AAY ration card are not being provided free connection. The NHPC engineers informed that they have not providing free connection to AAY ration card holders as REC, MoP has approved free connection for BPL ration card holders and there is no mention of AAY card holders. While arguing on the issue, the NHPC engineers did agree that the AAY card holders were among the poorest of the poor sections of our society and need to be provided free connection. However, NHPC insisted that they will act on the matter only when instructions in this regard are given by REC, MoP as the present nomenclature of BPL households in the approval orders does not include AAY households.

On enquiring about any other problem which the NHPC was facing in execution of the project, it was brought to notice that work of three double circuit 66 KV transmission towers to be erected in a marshy land near village Palam was held up as clearance from Forest Department was pending. The engineer of the executing agency informed that they had started the foundation work on one of these three towers during last winter and initially there was no objection from Forest Department. However, during summer when the frozen land turned marshy the employees of Forest Department emerged from no where and stopped the work claiming huge amount of fine instead of providing clearance to carry out further work. The NHPC stated that it is the job of the state government to provide land required for the project after payment of appropriate compensation. The NHPC informed that delay in conveying clearance by Forest Department will only result in slippage of time for completion of project which has already got delayed due to revision in cost owing to preparation of faulty DPRs based on which the contract was awarded to the A2Z Construction Company.

#### 14. Problem Areas/ Suggestions:

S. No	Problem Areas	Suggestions
1	Work on sub-stations has stopped due to shortage of steel gantry and other raw material. The shortage of raw material was due to excess expenditure incurred under phase-I as a result of changes made in design of substations and additional requirement of 25 KV distribution transformers and increase in length of HT and LT lines as per actual survey.	In order to re-start the held-up work approval of revised cost has been requisitioned by NHPC from REC, GOI. The PDD, J&K State must immediately take up the issue with the MoP, GoI so that necessary revision is accorded to the project without further delay.
2	Forest clearance is required for erecting 03 No. 66 KV Double Circuit Transmission Line towers between Leh substation to Leh Common Point Section near Palam village.	The Forest Department must immediately convey clearance to NHPC for erecting the 03 towers near Palam village after obtaining compensation from NHPC/PDD.

S. No	Problem Areas	Suggestions
3	Free BPL connection kit which comprise electronic meter, wire, fuse and one bulb is being provided to BPL card holders but not to the AAY card holders who fall below the line of poverty and are among the poorest of the poor.	The PDD must take up this issue with MoP, GoI so that necessary instructions are issued to NHPC so as to provide free BPL connection under the project to AAY card holders as well.
4	PDD is not taking over the charge of 20 villages which the NHPC has completed under the project. The list of these villages has been furnished by NHPC to PDD about 5 to 6 months back.	The PDD must takeover the charge of villages that are completed by NHPC under the project as per the MoU signed between PDD and NHPC after conducting the necessary inspections.
5	Village Dha which was reported to have been completed by NHPC and also figured in the list of 20 villages furnished to PDD for handing/taking over, was found incomplete since one un-stringed electric pole was observed and two BPL households (Mr. Gang Sonum & Tsering Narboo) which were visited were not provided free BPL connections. Moreover, the villagers were unaware of the free BPL kits and reported that there were other BPL households as well but none with a free connection. The villagers also complained that they have not been paid the wages for erecting/ transporting the electric poles for which the NHPC had engaged them.	NHPC must immediately provide free BPL connection kits to all the BPL households of Dha village and also pay the wages to the poor villagers for the work done which they claim to have executed for NHPC in their village.
6	Although electric network of poles and conductors have been laid in the far-flung and isolated villages such as Dha (near Batalik) and Phobrang (near Pangong lake) but there is no feeder line which can supply electricity to these villages.	The PDD, Science & Technology Deptt. and NHPC must take necessary steps in order to ensure that the villages that are getting completed under the said project are fed electricity through renewable/ non-renewable sources as has been envisaged by them for the far-flung and remote villages in district Leh.

### 15. Conclusion:-

The Rural Electrification Project under implementation in district Leh has brought some hope to the poor people who live in in-hospitable conditions and remote corners of the district. The pace of execution of the project has slowed down during the last few months and could create resentment among the locals if not completed in time. The PDD, Science & Technology Department and NHPC must put in their efforts to complete the balance work without further escalation in time/cost.

Physical Verification Conducted by:	Madan Gopal Sharma, Deputy Director Planning, Monitoring Cell, Chief Minister's Secretariat.
Officers of Executing Agency who accompanied:	1. Mr. Sripal, Manager, Elec. NHPC 2. Mr. Anup Kumar Gupta, AM Civil, NHPC 3. Mr. Tarun Gupta, JE Elec. NHPC. 4. Mr. Sanjay Sahni, AGM, A2Z Const. Co. 5. Mr. Abishek Kumar, A2Z Const. Co.