Initial Environmental Examination

June 2017

IND: Green Energy Corridor and Grid Strengthening Project
(400 kV AC power transmission systems associated with HVDC terminal stations at Pugalur, Tamil Nadu)
Annexures 6–11

Prepared by Power Grid Corporation of India Limited for the Asian Development Bank.

ANNEXURE – 6

HEALTH & SAFETY CHECKLISTS

HEALTH AND SAFETY CHECKLIST

Safety Related Check List during Construction of Transmission Lines

Region : ..... Name of DHQ/GHQ: ..... Date of Safety Audit:.....

Name of Tr. Line: .....……

Loc. No: .....……Voltage Level: .....

Name of Contractor: .....……

Name of Sub Contractor: .....……

A. DURING TOWER FOUNDATION :

SN	Description of Activity	Feed back	Remarks
	I) EXCAVATION :		
1.	Dumping of Excavated soil. (Minimum 1.5 Mts. or half the depth of the pit which ever is more)	Yes / No.	
2.	Whether angle of repose of soil as per design in the foundation is maintained or not.	Yes / No.	
3.	De watering arrangement is available (If necessary)	Yes / No.	
4.	Working area has been protected properly to avoid against fall of passerby or animal in the excavated pit.	Yes / No.	
5	Shoring & Shuttering to protect the loose rock / soil against fall exists.	Yes / No.	
6	Arrangement of illumination at construction site is available. (if required)	Yes / No.	
7	Check proper/adequate arrangement is made for extension of electric supply. (Proper size of cable, Use of fuse, No loose connection for De-watering Pumps/ Illumination / Electric compressors etc. if applicable).	Yes / No.	
8	Check for damage / Uneven settlement of foundation.	Yes / No.	
9	Ensure Life saver arrangements have been made during construction of well foundation in river bed. (Where necessary)	Yes / No.	
10	Check that the adequate arrangement is made for the storage of blasting material at safe place. (if required)	Yes / No.	
11	Check that the blasting materials is handled with due care at site. (If required)	Yes / No.	
12	Check that during blasting operation, Labour / Workmen / Passerby are at safe places and arrangement is made to inform public by caution markings (Red Flag) / Public Notices.	Yes / No.	
13	Check that the Blaster is holding the proper license issued by the appropriate authority. as per the Indian Explosive Act.	Yes / No.	
14	Check that the length of the fuse wire used during blasting operation is adequate.	Yes / No.	
15	Ensure Laying of temporary cable used for operation of Machines		

SN	Description of Activity	Feed back	Remarks
	used during construction should not cause any danger for electrocution of workmen.	Yes / No.	
16	Check that PPEs i.e. Safety helmets, Safety Shoes, is used by blaster and their gang members during blasting.	Yes / No.	
17	Ensure that Shuttering and timbering has been made as detailed in I:S: 3764.	Yes / No.	
18	Ensure that before undertaking excavation, the soil has been tested and in case of availability of any explosive / dangerous gas, necessary arrangement must be made to remove / dilute such gases.	Yes / No.	
19	The positions of underground installations such as sewers, water pipes and electrical cables have been verified and in case of their existence, they must be isolated.	Yes / No.	
20	Arrangement shall be made to prevent external vibrations due to rail / road traffic (If required).	Yes / No.	
21	Safety is ensured during the construction of Tr. Lines for buildings, structures etc. which are coming in the vicinity of the excavated area from collapse. (If required)	Yes / No.	
22	Check that sufficient strong ladder of suitable length is available for ingress / outgress of persons in the pit	Yes / No.	
23	Lone worker should not be allowed to work in the excavated area beyond shoulder level.	Yes / No.	
24	Check for any possibility of seepage of water from nearby pond / river should be estimated and taken care of.	Yes / No.	
25	After excavation the work has been completed speedily and back filling done at the earliest.	Yes / No.	
II) CASTING OF FOUNDATION / CONCRETING :			
1	Check construction materials are stacked at safe place and also does not cause any danger. (Away from pit by 1.5 Mtrs. Or half the depth of pit, which ever is more.)	Yes / No.	
2	Check arrangement of illumination at Construction Site. (If required).	Yes / No.	
3	Ensure life saver arrangements have been made during construction of Well foundation in River Bed.	Yes / No.	
4	Check that the Concreting Mixer machine is placed at a safe place. (Not very near to pit.)	Yes / No.	
5	Check proper / adequate arrangement is made for extension of electric supply. (Proper size of cable, Use of fuse, No loose connection for De watering Pumps / Illumination / Electric compressors etc. if applicable).	Yes / No.	
6	Check that laying of temporary cables used during construction activities should not cause any danger for electrocution to workmen.	Yes / No.	
7	Inspection of excavations shall be made by a Competent Person every day. In case, possible cave in or slide is apparent, all working in the excavation shall be seized until the necessary precautions have been taken to safeguard the possible cave in or slide.	Yes / No.	
8	Jacks and vertical supports shall be positioned in such a manner that		

SN	Description of Activity	Feed back	Remarks
	the vertical loads are distributed equally and do not exceed the capacity of the jacks and the jacks are placed away from pit edge etc.	Yes / No.	
9	Proper Jacking arrangement is made to take the entire load of template.	Yes / No.	
10	In case of long template in stub setting, more jacks have been provided and check that the Jacks are placed on levelled and hard surface to avoid the unbalancing and fallen.	Yes / No.	
11	Wire mesh rolls shall be secured in order to prevent dangerous recoiling action.	Yes / No.	
12	Lone worker should not be allowed to work in the excavated area.	Yes / No.	
13	Check that sufficient strong ladder of suitable length is available for ingress / outgress of persons in the pit	Yes / No.	

B. TOWER ERECTION :

SN	Description of Activity	Feed back	Remarks
1	Check proper communication facility is available at site during Tower erection. (If required)	Yes / No.	
2.	Check damages or uneven settlement of foundation.	Yes / No.	
3.	Ensure the derrick used before tower erection has been checked for adequate strength/ size. Ensure for copy of test certificate for all the lifting machines and tackles.	Yes / No.	
4.	Ensure that the pulleys used before tower erection has been checked for adequate strength / proper size (diameter). Also in case of open type pulleys proper locking arrangements like providing of Safety Pin is made. Ensure for copy of test certificate for all the lifting machines and tackles.	Yes / No.	
5.	Ensure that the ropes used before tower erection has been checked for adequate strength / physical condition (Free from break of strands and knots etc.	Yes / No.	
6.	Check that the lifting tools and tackles i.e. Winch Machine, Chain Pulley Block, Trifor, D - Shackle etc. are in healthy condition and has been tested periodically. (Attach copy of test certificate).	Yes / No.	
7.	Ensure that permission has been obtained from Aviation Authority for erection of special towers. (Where necessary).	Yes / No.	
8.	Ensure that permission has been obtained form Aviation Authority for erection of towers which comes in the vicinity of flying zone. (Where necessary)	Yes / No.	
9.	Check that the safety measures has been taken before undertaking for the Road / Rail / River Xing jobs involving like wise stretches.	Yes / No.	
10.	For rail or road crossing check whether written working plan is available at site with specific reference to safety e.g. local earthing, skilled & experience manpower, proper T&P, strength and height of scaffolding to maintain the required clearance etc.	Yes / No.	
11.	Ensure that all the members and proper size of Nuts and Bolts of lower section are fitted properly before erection of the upper section of tower is taken up.	Yes / No.	
12.	Check that the anti climbing devices are provided in the tower after		

SN	Description of Activity	Feed back	Remarks
	erection job.	Yes / No.	
13.	Check that the danger plates have been provided.	Yes / No.	
14.	Check that only erection team members are allowed to stand near the tower while erection is in process and should wear the safety helmet / Safety Shoes.	Yes / No.	
15.	Working area of the tower has been demarcated during erection.	Yes / No.	
16	Check that proper guying arrangement has been made. And also to see that proper size of the crow bars has been used which has been fixed at hard surface in case of sandy soil or loose soil.	Yes / No.	
17	Check that proper arrangement is made while lifting the tower members and fixing them at height i.e. Proper size and strength of the hook used for lifting the tower members.	Yes / No.	
18	Check sufficient numbers of guys are made while lifting the assembled cross arm and also avoiding use of single sheeve pulleys while lifting the assembled cross arm / heavy load.	Yes / No.	

C. CONDUCTOR STRINGING:

SN	Description of Activity	Feed back	Remarks
1.	All drivers and plant operators are holding the valid driving license.	Yes / No.	
2.	Check that the permit has been obtained from the Competent Authority for stringing of conductor while crossing through Road / Rail / River / Venerable areas etc. (Where necessary)	Yes / No.	
3.	Check that required painting has been made on tower falling in the vicinity of aviation zones. (Where necessary.)	Yes / No.	
4.	Check that all safety measures have been taken during stringing of conductor crossing the EHV / HV / LT lines (Earthing of existing lines etc.)	Yes / No.	
5.	Ensure that proper size of Nuts and Bolts is rigidly tightened and punching / tacking / tack welding is done in towers before undertaking stringing job.	Yes / No.	
6.	Ensure that proper scaffolding arrangements made during stringing of conductor (While Road Xing / Power Line Xing etc.	Yes / No.	
7.	Ensure that all members are fitted in tower before undertaking conductor stringing work.	Yes / No.	
8.	Check that the back filling of the foundation has been done as per specification.	Yes / No.	
9.	Ensure that the discharge rod is electrically tested before use.	Yes / No.	
10.	Stringing Machine / Tension pullor Machine are properly earthed.	Yes / No.	
11.	Check the brake arrangement of the TSE Machines is working.	Yes / No.	
12.	Ensure that the pulleys used before conductor stringing has been checked for adequate strength / proper size (diameter), also in case of open type pulleys proper locking arrangements like providing of Safety Pin is made Ensure for copy of test certificate for all the lifting machines and tackles.	Yes / No.	
13.	Ensure the ropes used before conductor stringing has been checked for adequate strength / physical condition (Free from break of strands and knots etc.	Yes / No.	
14.	Check that the lifting tools and tackles i.e. Winch Machine, Chain		

SN	Description of Activity	Feed back	Remarks
	Pulley Block, Trifor, D - Shackle etc. are in healthy condition and has been tested periodically. (Attach copy of test certificate).	Yes / No.	
15.	Check for the brake arrangement of the Drum reel of conductor during laying / paying out of conductor.	Yes / No.	
16.	Check that proper communication facility is available at site during of stringing of conductor (If required)	Yes / No.	
17.	Whether the tower has been permanently earthed.	Yes / No.	
18.	Check that Sag Board is provided at two locations.	Yes / No.	
19.	Check that the Sag Board arrangement is made by the experienced / trained persons.	Yes / No.	
20.	Check approved Sag tension chart is available and followed at site.	Yes / No.	
21.	While clamping of conductor / EW to be done, check for earthing.	Yes / No.	
22.	Ensure sending signal to puller to stop when last layer of conductor / EW being pulled.	Yes / No.	
23.	Check tension applied on the dynamo meter dial and check values with approved data.	Yes / No.	
24.	Before stringing starts check that the villagers do not come underneath the job of the concerned section.	Yes / No.	
25.	Only nylon or polypropylene ropes should be used during conductor stringing in vicinity of live overhead lines.	Yes / No.	
26.	Ensure that PTW has been taken from the concerned authority.	Yes / No.	
27.	Ensure that Winch, Pulleys etc. are properly earthed.	Yes / No.	
28.	For LT lines, whether special persons are posted at each point of isolation till return of permit (PTW).	Yes / No.	
29.	Whether the network of LT lines has been thoroughly checked and precautions taken Against inadvertent charging.	Yes / No.	
30.	Check that proper arrangement is made / available for development and use of a Portable Earthing and Short – Circuiting Devices which can be engaged and disengaged to and from the LT lines, keeping away from the LT lines, until all operations on the same are completed and all men and materials are removed from LT lines.	Yes / No.	
31.	Check the provision and proper positioning for the guying and back staying (Where necessary).	Yes / No.	
32.	Check demarcation of feeder is done for D/c Line.	Yes / No.	
33.	Ensure that all the insulator strings are thoroughly checked for availability and proper fixing of cotter / split pins before hoisting the same.	Yes / No.	

General Points common for all activities during Excavation, Casting of Foundation

A. ERECTION OF TOWER AND STRINGING OF CONDUCTOR :

SN	Description of Activity	Feed back	Remarks
1.	Check whether the contractor had procured required quantity of PPEs considering maximum numbers of erection gangs deployed at one time.	Yes / No.	
2.	Supervisors/ Workmen have been provided with required healthy PPEs, like Safety helmet / Safety Belts / Safety Shoes / Gum Boot etc. as applicable.	Yes / No.	
3.	Availability of First Aid Box with required medicines at site.	Yes / No.	
4.	Instruction register is available at site.	Yes / No.	
5.	Ensure that Supervisor / Gang Leader always issues instruction to the Workmen before start of work.	Yes / No.	
6.	Ensure that supervisory staff from Power Grid is available at site during construction.	Yes / No.	
7.	All driver and plant operators are holding valid driving license.	Yes / No.	
8.	Check the vehicle for rescue is available at site.	Yes / No.	
9.	Ensure engaged labour are aware of the job.	Yes / No.	
10.	Check that the unskilled labourers are not engaged in skilled job.	Yes / No.	
11.	Ensure that supervisor / workmen engaged in the field are aware of First Aid Techniques (Such as in case of Electric Shock, Fall from the height, Snake bite and the person rescued from buried under the debris etc.	Yes / No.	
12.	Check for nearby Hospital / Doctor in case of emergencies arises.	Yes / No.	
13.	While transporting heavy consignment of conductor / EW drums from central store to site by the use of Cranes, Truck, and Tractor. The safety aspect for construction and failure of brake system of moving machinery is to be checked.	Yes / No.	
14.	At least one dry powder type of portable fire extinguisher shall be provided especially where explosive or blasting agents are used for excavation.	Yes / No.	
15.	Check the competence (Qualification / Experience) of supervisor / gang leader of contractor.	Yes / No.	

REMARKS IF ANY:

Signature Name : Designation : Representative of Contractor	Signature Name : Designation: Power Grid Rep. from Site.	Signature Name : Designation: Power Grid Rep. from RHQ.

Safety Related Check List during Construction of Substation

Region: .....…. Name of DHQ / GHQ: ..... Date of Safety Audit:.....

Name of Sub Stn. / Switching Stn.: .....……

Name of Contractor: .....…….

Contractor License / Registration No.:…….....Validity.....…….....

Name of Sub Contractor : .....……

A. SUB STATION CIVIL WORKS :

SN	Description of Activity	Feed back	Remarks
I): SAFETY DURING EXCAVATION :			
1.	Check Sub station area has been protected by constructing boundary wall all around the sub station to avoid entry of passerby / unauthorized person or animal in the sub station.	Yes / No.	
2.	De watering arrangement is available (If necessary)	Yes / No.	
3.	Check proper / adequate arrangement is made for extension of electric supply. (Proper size of cable, Use of fuse, No loose connection and no naked wire connection to Pumps / Illumination / Electric compressors etc. if applicable).	Yes / No.	
4.	Check arrangement of illumination at construction site is available.	Yes / No.	
5.	Check dumping of Excavated soil (Minimum 1.5 Mts. Or half the depth of the pit which ever is more from the edge of the pit.)	Yes / No.	
6.	Check Shoring & Shuttering to protect the loose rock / soil against fall. (if required).	Yes / No.	
7.	Check lone worker is not be allowed to work in the excavated area.	Yes / No.	
8.	Ensure Laying of temporary cables used for operation of Machines used during construction should not cause any danger for electrocution of persons / animals.	Yes / No.	
9.	Ensure that before undertaking excavation, the soil has been tested and in case of availability of any explosive / dangerous gas, necessary arrangement must be made to remove / dilute such gases.	Yes / No.	
10.	The positions of underground installations such as sewers, water pipes and electrical cables has been verified and in case of their existence, they must be isolated before further excavation works to ensure Human Safety.	Yes / No.	
11.	Check that the scaffolds are not overloaded in any case. Scaffolds are to be erected and supported properly.	Yes / No.	
12.	Stability of the soil of the excavated pit for safe working is to be checked and certified by a competent person daily before start of work. A register at site is maintained where competent person can certify accordingly. No manhole should remain uncovered during night & off days.	Yes / No.	
13.	Check the provision of sufficient strong ladder of suitable length is available near the working place during excavation.	Yes / No.	

SN	Description of Activity	Feed back	Remarks
14.	Check if any permission is required from local statutory body before excavation.	Yes / No.	
15.	Check for No undercutting / toe cutting in soil.	Yes / No.	
16.	Check after excavation the work should be speedily completed without delay and back filling done at the earliest.	Yes / No.	
17.	Check for any possibility of seepage of water from nearby pond / river has been estimated and taken care of.	Yes / No	
18.	Check to avoid slide / collaps of side walls of excavated pit, the excavation is to be done in trapezoidal cross – section.	Yes / No.	
II): SAFETY PRECAUTION DURING STORAGE, HANDLING AND USE OF BLASTING MATERIAL:			
1	Check that the adequate arrangement is made for the storage of blasting material at safe place. (Temporary Magazine is to be installed observing all norms) as per Indian Explosive Act.	Yes / No.	
2.	Check that the blasting materials is handled by licensed blaster with due care at site. (If applicable)	Yes / No.	
3.	Check smoking is prohibited in the vehicle carrying explosives.	Yes / No.	
4.	Check that the Blaster is holding proper license issued by the appropriate authority. As per Indian Explosive Act.	Yes / No.	
5.	Check that the length of the fuse wire used during blasting operation is adequate.	Yes / No.	
6.	Check while transportation, no unauthorized person is allowed in vehicle carrying explosives.	Yes / No.	
7.	Check that the loading and unloading of explosives is being done carefully.	Yes / No.	
8.	Check explosives and detonators or blasting caps is not being transported in the same vehicle.	Yes / No.	
9.	Check while transportation the detonators and explosives are not carried loose or mixed with other materials.	Yes / No.	
10	Check surplus explosives shall not be stacked near working area during loading / unloading.	Yes / No.	
11.	Check explosives shall not be held in hands when lightening the fuse.	Yes / No.	
12.	Check that blasting in the open has been carried out during the fixed hours every day or on fixed days in the week so that the public at large should know about this.	Yes / No.	
13.	Check that arrangement has been made to display sufficient warnings / sign board to enable the people to get out of the blasting area to get off the danger zone	Yes / No.	
14.	Check that the danger zone has been suitably cordoned off.	Yes / No.	
15.	Check during blasting operations begin / after the firing of explosives shall follow the loud siren.	Yes / No.	
16.	Check that during blasting operation, Labour / Workmen / Passerby are at safe places and arrangement is made to inform public by caution markings (Red Flag) / Public Notices etc.	Yes / No.	
17.	Check that PPEs i.e. Safety helmets, Safety Shoes, is used by blaster and their gang members during blasting and also the persons supervising the blasting operations.	Yes / No.	

SN	Description of Activity	Feed back	Remarks
18.	For covered blasting ensure placement of cover plates of proper thickness and sufficient numbers of sand filled bags.	Yes / No.	
19.	Ensure that permission for blasting has been obtained from the appropriate authority.	Yes / No.	
III) SAFETY DURING CASTING OF FOUNDATION / CONCRETING :			
1.	Check construction materials are stacked at safe place and also does not cause any danger. (Away from pit) i.e. 1.5 Mtrs. or half the depth of the pit which ever is more.)	Yes / No.	
2.	Check proper arrangement of illumination at Construction Site of Sub station is available.	Yes / No.	
3.	Check that the Concreting Mixer/ Vibrator machines etc are placed at a safe place (Not very near to any pit at least 1.5 Mtr. from the edge of the pit) to avoid transfer of vibrations and should be operated by skilled persons.	Yes / No.	
4.	Check proper / adequate arrangement is made for extension of electric supply. (Proper size of cable, Use of fuse, No loose connection for De watering Pumps / Illumination / Electric compressors etc. if applicable).	Yes / No.	
5.	Check for laying of temporary cables used during construction activities should not cause any danger for electrocution to persons / animals.	Yes / No.	
6.	All bracing, struts and shuttering in excavations shall be adequately secured so as to prevent their accidental displacement.	Yes / No.	
7.	Ensure Shuttering and timbering has been made as detailed in I:S: 3764 for protecting the loose rock / soil against fall.	Yes / No.	
8.	Check for proper placing of Hydraulic jacks with stability and constant watch of these instruments (which are continuously loaded) to avoid any danger of displacement causing sever accident.	Yes / No.	

B. SAFETY DURING STRUCTURE, EQUIPMENT ERECTION & CABLE LAYING ETC. :

SN	Description of Activity	Feedback	Remarks
1.	Check Back filling done prior to erection activity.	Yes / No.	
2.	Check the derrick used before structure erection has been checked for adequate strength / size and no joints are permitted.	Yes / No.	Test certificate is required apart from visual inspection.
3.	Check that the pulleys used before structure erection / Equipment Erection has been checked for adequate strength / proper size (diameter), also in case of open type pulleys proper locking arrangements like providing of Safety Pin is made Safe working load should be punched.	Yes / No.	Test certificate is required apart from visual inspection.
4.	Check the ropes used before structure erection / Equipment Erection has been checked for adequate strength / physical condition (free from break of strands and knots etc.	Yes / No.	Test certificate is required apart from visual inspection.

SN	Description of Activity	Feedback	Remarks
5.	Check that the lifting tools and tackles are in healthy condition and has been tested periodically.	Yes / No.	Test certificate is required apart from visual inspection.
6.	Check permission has been obtained from Aviation Authority for erection of Lightning Mast which comes in the vicinity of flying zone. (Where necessary)	Yes / No.	
7.	Check that all Nuts and Bolts are fitted in the structure before undertaking the job of other section of the structure and are tightened.	Yes / No.	
8.	Check area has been cordoned off to prevent injuries to unauthorized persons from hitting against structural component or falling in the excavated pits.	Yes / No.	
9.	Check that danger plates are available on all the equipment & structures in the switchyard.	Yes / No.	
10.	Check demarcation of feeder is done for Double Circuit Line.	Yes / No.	
11.	Check only erection team members are allowed to stand near the structure / Equipment while erection is in process and should wear the safety helmet / Safety Shoes.	Yes / No.	
12.	Check proper guying arrangement has been made while lifting structure / Equipment, if necessary.	Yes / No.	
13.	Check that proper arrangement is made while lifting the structure members and fixing them at height i.e. Proper size and strength of the hook used for lifting the structure members.	Yes / No.	
14.	Check sufficient numbers of guys are made while lifting the assembled structure / heavy loads and also avoiding use of single sheeve pulleys while lifting the assembled structure / heavy load.	Yes / No.	
15.	Check arrangement has been made for equipment identification.	Yes / No.	
16.	Check that required painting made on tower falling in the vicinity of aviation zones. (Where necessary.)	Yes / No.	
17	Check no live wires nearby. Take shut down if necessary.	Yes / No.	
18.	Check the structure has been permanently earthed.	Yes / No.	
19.	Check crane are preferably be used for erection of pipe structure in the sub station building works (if required.)	Yes / No.	
20.	Check all safety procedures for erection work like use of safety helmets, Safety belts, use of guy wires, lowering / lifting of tools by rope etc. are strictly adhered to during structure erection works is in progress in the switchyard.	Yes / No.	
21.	Check that correct size of spanner (Box or ring type) as well as DE spanners is being used.	Yes / No.	
22.	Check working area of the structure has been demarcated during erection.	Yes / No.	
23.	Check heavy structures are lifted with crane with proper safety.	Yes / No.	

SN	Description of Activity	Feedback	Remarks
24.	Only polypropylene ropes are to be used to tie the aluminium tube / Bus bar since this is soft material and will not damage aluminium tube / Bus bar during erection.	Yes / No.	
25.	Ensure that R clips in insulator caps are fixed properly to avoid disconnection of insulator discs.	Yes / No.	
26.	Ensure that all the necessary security pins (split pins) are fixed.	Yes / No.	
27.	Check all nuts of jumper fittings are properly tightened and live metal clearance have been maintained as per POWERGRID specification.	Yes / No.	
28.	In case of tension fitting dead end joint dimensions before & after the compression are checked and recorded.	Yes / No.	
29.	No damaged component of any hardware fitting should be used on works.	Yes / No.	
30.	Length of jumpers has been measured properly to give it a parabolic shape. No sharp bend should exist.	Yes / No.	
31.	Check surge counter erection facilitates proper reading and that earthing is done with minimum bends.	Yes / No.	
32.	Check Surge monitor has been earthed by connecting it to main earth mat with (G I Flat 75 x 12 mm) and earth pit separately as per drawing.	Yes / No.	
33.	Check the alignment of earth switch with isolator, earth switch of isolator is put into operation and the contacts are cleaned. After completion of pre commissioning checks and formats are dully filled and signed.	Yes / No.	
34.	Ensure that the rubber beedings are kept in good condition.	Yes / No.	
35.	Check CT has been placed on the support structure very carefully and all nuts have been tightened. Earthing is done as per drawing.	Yes / No.	
36.	Ensure the lattice structure of CT has been earthed at two points.	Yes / No.	
37.	Check the marshalling box in the switchyard has proper illumination arrangement.	Yes / No.	
38.	Check the capacitor unit is short circuited & earthed, until erection and commissioning works are being done on CVT. (The capacitor get charged by the electrical fields in the vicinity and they keep these charges for a long time, which can be dangerous to human life. Hence the shorting of capacitor unit is necessary). It should be removed before tests / use.	Yes / No.	
39.	Check Fuses in the marshaling box are OK.	Yes / No.	
40.	Check proper earthing of CVT tank has been done.	Yes / No.	
41.	Check all housing accessories, mounting stools including bolts / Nuts for fixing Line Trap and insulators are of non magnetic material.	Yes / No.	
42.	Check H.F. point of CVTs on which the coupling device is not mounted has been earthed.	Yes / No.	

SN	Description of Activity	Feedback	Remarks
43.	Check the remaining CVTs have been earthed thro' coupling device.	Yes / No.	
44.	Cable drums after visual inspection should be stored preferably in the covered area. Cable ends should be clamped.	Yes / No.	
45.	Ensure each cable and conduit run should be tagged with cable identity numbering as per the approved that appear in the cable and conduit schedule.	Yes / No.	
46.	The tag should be of aluminium plate with ID number punched on it and securely attached to the cable conduit by not less than two turns. Cable tags should of rectangular shape for power cables and of circular shape for control cables.	Yes / No.	
47.	Check underground cable markers should project 150 mm above ground and spaced at an interval of 30 Mts. They shall be located on both sides of road and drain crossing and also at every change in direction.	Yes / No.	
48.	Check cable tags should be provided inside the switchgear, motor control centres, control and relay panels etc. wherever required for cable identification, where a number of cables enter together through a gland plate.	Yes / No.	
49.	The cable (power and control) between LT stations, Control room, DG set building and fire fighting pump house should be laid in the buried cable trenches. In addition to the above, for lighting purpose also, buried cable trench can be used in outdoor area.(as per Technical specification of specific contract)	Yes / No.	
50.	Cable route and joint markers and RCC warning covers should be provided wherever required. The voltage grade of cables should be engraved on the marker.	Yes / No.	
51.	Tray Identification Number on each run of trays at an interval of 10 Mtrs should be painted.	Yes / No.	
52.	In case the outer sheath of a cable is damaged during handling / installation, the same should be repaired to the satisfaction of the site. In case any other part of a cable is damaged, the same should be replaced by a healthy cable. Power cables should be at the top most layers. The armor of control cable is to be earthed.	Yes / No.	
53.	All cable termination should be appropriately tightened to ensure secure and reliable connections. All the exposed parts of cable lugs should be covered with tape, sleeve or paint.	Yes / No.	
54.	Power and control cables are laid on separate cable trays	Yes / No.	
55.	Co-axial cable is laid separately from power cable.	Yes / No.	
56.	All cable trays, racks and metallic ducts have been grounded by connecting each to earth / mat. (As per Scheme)	Yes / No.	
57.	Check sections of cable trays have been bridged by copper jumpers/ G I to retain continuity of earthing. (As per Scheme)	Yes / No.	
58.	Check earthing of panel is done by the erection contractor for connecting it with switchyard earth mat. (As per Scheme)	Yes / No.	

SN	Description of Activity	Feedback	Remarks
59.	Auxiliary bus wiring for AC and DC supplies, Voltage Transformer circuits, annunciation circuits and other common services is provided near the top of the panels running through out the entire length of the panels.	Yes / No.	
60.	All internal wiring to be connected to external equipment is terminated on terminal blocks, preferably vertically mounted on the side of each panel.	Yes / No.	
61.	Check whether Mimic Diagram is available preferably made of anodized aluminium or plastic of approved fast colour material and screwed on to the panel that can be easily cleaned.	Yes / No.	
62.	Check the panels all equipment mounted on front and rear side as well as equipment mounted inside are provided with individual name plates with equipment designated engraved.	Yes / No.	
63.	Check on top of each panel on front as well as rear side, large and bold name plates are provided for circuit / feeder designation.	Yes / No.	
64.	Check all front mounted equipments are provided at the rear with individual name plates engraved with tag numbers corresponding to panel internal wiring to facilitate easy tracing of the wiring.	Yes / No.	
65.	Check the name plates mounted directly by the side of the respective equipments should not be hidden by equipment wiring.	Yes / No.	
66.	Check availability of 240V single phase 50 HZ, AC socket with switch suitable to accept 5 Amps and !5 Amps pin round standard plug, is provided in the interior of each cubicle with ON-OFF switch for connection of hand lamps.	Yes / No.	
67.	Check that panels are provided with a fluorescent lighting fixture rated with 240 Volts single phase, 50 Hz supply for the interior illumination of the panel during maintenance. The fittings are complete with switch fuse unit and switching of the lighting is controlled by the respective panel door switch. Adequate lighting with fuse unit is also provided for the corridor in control panels.	Yes / No.	
68.	Check control panels are provided with necessary arrangements for receiving, distributing, isolating and fusing of DC and AC supplies for various control, signalling, lighting and space heater circuits. The incoming and sub circuits are separately with switch fuse units.	Yes / No.	
69.	Check panels are provided with a space heater rated for 240 V, single phase, 50 Hz, AC supply for the internal heating of the panel to prevent condensation of moisture.	Yes / No.	
70.	Check all panels are equipped with an earth bus securely fixed	Yes / No.	
71.	Check when several panels are mounted adjoining each other, the earth bus is made continuous with necessary connectors and clamps for this purpose.	Yes / No.	
72.	Check provision is made for extending the earth bus bars to adjoining panels on either side.	Yes / No.	

SN	Description of Activity	Feedback	Remarks
73.	Check provision is made on each bus bar of the end panels for connecting earthing grid.	Yes / No.	
74.	Check all metallic cases of relays, instruments and panel mounted equipment including gland plates are connected to the earth bus by copper wires of specified size.	Yes / No.	
75.	Check the colour code of the earthing wire is green.	Yes / No.	
76.	Check that earthing made with equipment is with Nuts and Bolts i.e. For such connection lugs should be pressed and tightened to the terminals through Nuts and Bolts.	Yes / No.	
77.	Check that no equipment is mounted on the panel doors.	Yes / No.	
78.	Check each switch should bear clear inscription identifying its function.	Yes / No.	
79.	Check those who have sufficient knowledge of steel structural job have been employed in steel structural works only.	Yes / No.	
80.	Check necessary instruction has been communicated by supervisor before start of the day's works to workmen under his control.	Yes / No.	
81.	Storing of equipments is to be made properly to avoid any accident during handling.	Yes / No.	
82.	Check all Nuts and bolts are properly raised or lowered preferably using closed loop pulleys and gully bags / hand bags tied at the end for carrying nuts and bolts.	Yes / No.	
83.	Check that Fire resistant sheets are used before entrance of control cable in control room.	Yes / No.	
84.	Check air compressor tubing properly tightened.	Yes / No.	
85.	Check all carrying connectors / clamps properly tightened.	Yes / No.	

C. CONDUCTOR LAYOUT DURING CONSTRUCTION STAGE :

SN	Description of Activity	Feed back	Remarks
1.	Check all members are fixed in structure and ensure proper size of Nuts and Bolts are rigidly tightened and punching / tacking / tack welding is done in towers / structures before undertaking conductor laying job.	Yes / No.	
2.	Ensure proper scaffolding arrangements made during laying of conductor (While Power Line crossing etc).	Yes / No.	
3.	Ensure that all members are fitted in structure before undertaking conductor laying work.	Yes / No.	
4.	Ensure that the discharge rod is electrically tested before use.	Yes / No.	
5.	Ensure whether the structure is properly earthed.	Yes / No.	
6.	Only nylon or polypropylene ropes should be used during conductor laying in vicinity of live overhead lines.	Yes / No.	
7.	Ensure that PTW has been taken from the concerned authority when extension of existing sub station is under execution.	Yes / No.	
8.	Ensure that Winch, Pulleys etc. are properly earthed.	Yes / No.	

SN	Description of Activity	Feed back	Remarks
9.	For LT lines, check whether special persons are posted at each point of isolation till return of permit (PTW) if positioning of person is not possible then it is to be seen that all the point of isolation has been kept in the locked position till the work is in progress.	Yes / No.	
10.	Whether the network of LT lines has been thoroughly checked and precautions taken against inadvertent charging.	Yes / No.	
11.	Check that proper arrangement is made / available for grounding LT lines coming across during conductor laying. (This can be done by way of portable earthing and short circuiting devices which cab be engaged to and disengaged from LT lines, keeping away from the LT lines until all operations on the same are completed and all man and materials are removed from the LT lines).	Yes / No.	
12.	Check the provision and proper positioning for the guying and back staying (Where necessary).	Yes / No.	
13.	Check working of hydraulic crimping machine.	Yes / No.	
14.	Check before and after crimping, dimensional changes in clamps and are in accordance with the drawings and specifications.	Yes / No.	

D SWITCHYARD EARTHING DURING CONSTRUCTION STAGE:

SN	Description of Activity	Feed back	Remarks
1.	Check that while earthing conductor crossing the road is laid 300 mm below the road or at greater depth depending upon the site conditions.	Yes / No.	
2.	Check that while laying the Earthing conductor in outside area is buried at least 600 mm below the furnished ground level.	Yes / No.	
3.	Check that the earthing pads have been provided for the apparatus / equipments at accessible position.	Yes / No.	
4.	Check all steel columns, metallic stairs are connected to nearby earthing grid conductor by two earthing leads.	Yes / No.	
5.	Check of earthing of lightening fixtures, receptacles switches, junction boxes lighting conduits has been done by a separate earthing conductor.	Yes / No.	
6.	Check that the railway tracks within switchyard area has been earthed at a spacing of 30 Mts. / specified distance and also at both ends.	Yes / No.	
7.	Check cable trays has been connected to earthing flat of 50X6 mm / specified sized earthing flat at intervals specified in approved drawing.	Yes / No.	
8.	Check that this earthed flat is earthed at about 30 Mts. distance.	Yes / No.	
9.	All accessories in transformer and reactor like radiators tank, cooling banks etc are connected to the earthing grid at minimum two points.	Yes / No.	
10.	Check metallic conduits are not used as earth continuity conductor.	Yes / No.	
11.	Check flexible earthing connectors should be provided for the moving parts.	Yes / No.	

SN	Description of Activity	Feed back	Remarks
12.	Check sheath and armor of single core power cable is earthed at switchgear end and equipment side.	Yes / No.	
13.	Check contact surface of earthing pads for jointing free from scale, paint, enamel, grease, rust or dust.	Yes / No.	
14.	Check that light poles, junction boxes on the poles, cable and cable boxes / glands, lockout switches etc. are connected to the earthing conductor running along with the supply cable which intern is connected to the earthing grid conductor at a minimum two points.	Yes / No.	
15.	Check earthing conductor which is generally buried 2000 mm outside the switchyard fence. All the gates and every alternate post of the fence are to be connected to earthing grid.	Yes / No.	
16.	Check megger used for measuring soil resistivity is calibrated with desired accuracy.	Yes / No.	
17.	The earth resistivity has been measured in dry weather condition.	Yes / No.	
18.	Check the earthing of Transformers and Shunt reactor, earth pits are constructed as per relevant standard / approved drawing.	Yes / No.	
19.	Check that the measured value of combined earth resistance should be less than 1 Ohm.	Yes / No.	
20.	Check that for earth electrode and individual earth pits, this value should not be more than one Ohm.	Yes / No.	
21.	Check all non current carrying metal parts shall be effectively earthed by two separate and distinct earth connections (Indian Electricity Rule 61,67)	Yes / No.	
22.	Check that all pylon supports in the Fire Fighting HVSW system has been earthed to the earthmat.	Yes / No.	

E: GENERAL POINTS COMMON FOR ALL ACTIVITIES DURING EXCAVATION, CASTING OF FOUNDATION

Erection of structures, laying of Conductor, storage and transportation of material:

SN	Description of Activity	Feed back	Remarks
1.	Check Supervisors / Workmen have been provided with required healthy PPEs. Like (Safety helmet / Safety Belts / Safety Shoes / Gum Boot etc. as applicable)	Yes / No.	
2.	Check availability of First Aid Box with required medicines at site.	Yes / No.	
3.	Check Site Instruction register is available at site.	Yes / No.	
4.	Ensure Supervisor / Gang Leader always issues instruction to the Workmen including contractor labour before start of work.	Yes / No.	
5.	Ensure supervisory staff from Power Grid is available at site during construction.	Yes / No.	
6.	Check all driver and plant operators are holding valid driving license.	Yes / No.	
7.	Check the vehicle for rescue is available at site.	Yes / No.	
8.	Ensure engaged labour are aware of the job.	Yes / No	
9.	Ensure supervisor / workmen engaged in the field are aware of First Aid Techniques (Such as in case of Electric Shock, Fall from the	Yes / No.	

SN	Description of Activity	Feed back	Remarks
	height, Snake bite and the person rescued from buried under the debris, rescue of person from drowning etc.		
10.	Check for availability and to keep a record of nearby Hospital / Doctor in case of emergencies arises.	Yes / No.	
11.	While transporting heavy consignment of conductor / EW drums from central store to site by the use of Cranes, Truck, Tractor. The safety aspect for construction and failure of brake system of moving machinery is to be checked.	Yes / No.	
12.	At least one dry powder type of portable fire extinguisher shall be provided especially where explosive or blasting agents are used for excavation. (If applicable)	Yes / No.	
13.	Check the competence (Qualification / experience) of supervisor / gang leader of contractor.	Yes / No.	
14.	Wire mesh rolls shall be secured in order to prevent dangerous recoiling action.	Yes / No.	
15.	Proper unloading arrangement has been made at site (Preferably with crane) to unload the material.	Yes / No.	
16.	After unloading the material visual inspection of the materials has been carried out along with the erection contractor to check that the material has not been damaged or not (Galvanizing is proper or not) As per approved Field Quality Plan etc.	Yes / No.	
17.	While transporting the heavy laden equipment like transformer / Reactor by road from Rly Stn to Sub station check whether for all safety precaution taken. Like safe lifting capacity of crane, safe load on culvert / Bridge / Nala / Drain etc.and working plan is available at site with specific reference to safety e.g. local earthing, skilled & experience manpower, proper T&P, strength and LT wires / HT wires interrupting the height of equipment and the required clearance maintained etc. Permission to be obtained from concerned authority if required. "Impact recorder on the equipment like Reactor / Transformer must be installed during transportation"	Yes / No.	
18.	Check that the adequate and safe means of access and aggress has been provided for all work places as far as reasonably practicable and is being used by the workers.	Yes / No.	
19.	Check proper illumination is provided at the work places and their approaches including passage ways.	Yes / No.	
20.	Check that the lamps have been protected by suitable guards where necessary to prevent danger, in case the lamp breaks.	Yes / No.	
21.	Check loose materials which are not required for use shall not be placed or left so as dangerously to obstruct work places or passage ways.	Yes / No.	
22.	Check all projected nails has been removed or bent over to prevent injury.	Yes / No.	
23.	Check scrap, waste and rubbish has not been allowed to accommodate on the site or the scrap materials has been stored at the isolated place.	Yes / No.	
24.	Check that the worker while working at height scaffold materials, waste materials and tools are not being thrown by them to cause injury to any person.	Yes / No.	

SN	Description of Activity	Feed back	Remarks
25.	Check whether contractor has procured required quantity of PPE considering maximum number of erection gangs deployed at one time. Check the quantity of PPEs.	Yes / No.	
26.	Check that the PPEs required by the workmen are being utilized by them always.	Yes / No.	
27.	Check the worker is under constant surveillance by the other person while working at height.	Yes / No.	
28.	Check construction site has been barricaded for unauthorized persons / animals.	Yes / No.	
29.	Check that lifting appliances and machines and vehicles used on the construction site is of sound material and good quality and is free from patent defects and is strong enough to with safely the load and stresses to which they will be subjected.	Yes / No.	
30.	Check structures and equipment is being used only for the purpose for which they were intended.	Yes / No.	
31.	Check equipment has been operated by the competent person.	Yes / No.	
32.	Check portable ladders shall not exceed 9 Mts. in length, other wise may cause danger while climbing of person and back legs shall be equally braced.	Yes / No.	
33.	Check unskilled labour are not utilized for skilled jobs and only experience persons are deployed for erection.	Yes / No.	
34.	Check a well planed and documented procedure for the entire Construction works of Sub station shall be prepared by contractor and get approved from Power Grid for distribution to Contractors' field staff and Power Grid for follow up.	Yes / No.	
35.	Check no metallic measuring tapes are being used during expansion of charged bays.	Yes / No.	
36.	Check metal ladders are not being used in the vicinity of exposed live electrical equipment.	Yes / No.	
37.	Check one bore well is available for water supply in case Municipal Construction supply is not available	Yes / No.	
38.	Check charged area of a yard should be properly fenced off.	Yes / No.	
39.	Check ladders / lengthy articles / lengthy equipments etc. should always be carried in horizontal position.	Yes / No.	
40.	Check insurance by contractor for the labour to provide adequate coverage for any accident etc.	Yes / No.	

REMARKS IF ANY:

Signature Name : Designation: Power Grid Rep.	Signature Name : Designation: Rep. from Contractor	Signature Name : Designation : Rep. from

ANNEXURE – 7

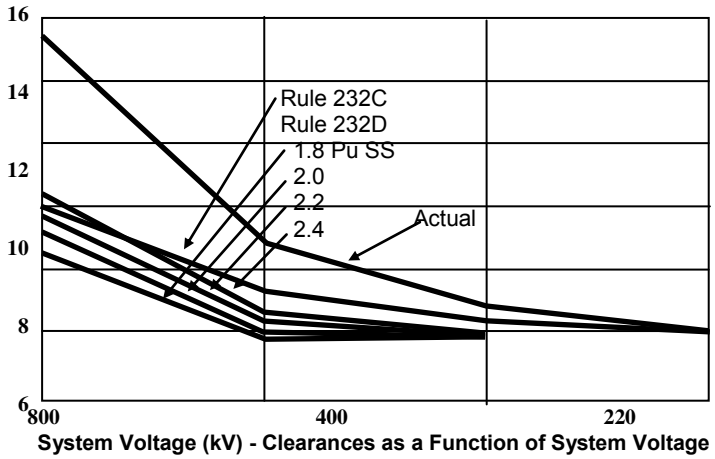
REPORT OF PTI ON EMF

ELECTRO-MAGNETIC FIELD

Power Technologies, Inc. has been requested to review POWERGRID's 132 KV, 220 KV, 400 KV and 800 KV lines with respect to conductor to ground, phase to phase and circuit to circuit clearances and their appropriateness in light of present practice.

Based on a review of POWERGRID's designs, we find that the phase to phase and circuit to circuit clearances are consistent with practices used for line clearances throughout the world. The values used by POWERGRID are generally in the middle range of that used throughout the world and are expected to provide satisfactory performance.

The conductor to ground clearances are within typical limits and meet or exceed the requirements of the National Electrical Safety Code, American National Standard Institute, C2, as shown on Figure.



Analysis of POWERGRID Transmission Line Clearances

The analysis was based on the following data as supplied by POWERGRID.

800 KV S/C LINE

Configuration - Horizontal
Conductor Bundle - Quad CSR Bursitis (35.1 mm id)
Max. conductor sag - 14.56 m
Phase to phase spacing - approx. 15 m.
Ground clearance - 12.4 m (as per IE rules):15 m (maintained to limit max. electric field to 10 KV/m)
Right of way - 85 m

400 KV S/C LINE

Configuration - Horizontal
Conductor Bundle - Twin ACSR Moose (31.77 mm dia)
Maximum conductor sag - 12.87 m
Phase to phase spacing - 10 to 12 m
Ground clearance - 8.84 m (as per IE rules)
Right of way - 52 m

400 KV D/C LINE

Configuration - Vertical
Conductor Bundle - Twin ACSR Moose (31.77 mm dia)
Maximum conductor sag - 12.87 m
Phase to phase spacing - 8 to 9 m
Ckt. to ckt. spacing - 12 to 14 m
Ground clearance - 8.84 m (as per IE rules)
Right of way - 52 m

220 KV D/C LINE

Configuration - Vertical
Maximum conductor sag - approximately 9.8 m
Phase to phase spacing - 5 to 5.5 m
Ckt. to ckt. spacing - approximately 10
Ground clearance - 7.015 m (as per IE rules)
Right of way - 35 m

132 KV D/C LINE

Configuration - Vertical
Conductor - ACSR Panther (21 mm dia)
Maximum conductor sag - approximately 6.6 m
Phase to phase spacing - approximately 4 m
Ckt. to ckt. spacing - approximately 7 m
Ground clearance - 6.1 m (as per IE rules)
Right of way - 27 m

ANNEXURE – 8

PROCEDURE OF PUBLIC CONSULTATION

POWERGRID'S PUBLIC CONSULTATION PROCESS

Public consultation forms an integral part of POWERGRID's project cycle, and will be carried out in Regional/local language for wider/better understanding. The process of consultation and its documentation shall be as follows:

TRANSMISSION LINES

1. When planning a transmission line, public consultation is used as an integral tool for screening, assessment and finalisation of route alignment. During initial screening and walkover survey, POWERGRID's staffs meet the public in the route of proposed transmission line. Observations and problems arising from these discussions are given due consideration while finalising the route.

2. During the survey for tower spotting, POWERGRID's site officials meet the public i.e. people coming in the route of the line. This enables POWERGRID to gauge public opinion. At the time of construction, every individual on whose land a tower is to be erected is met with. People coming in the way of the ROW are consulted and their views and suggestions are incorporated thus allowing for public participation.

3. During construction POWERGRID pays the compensation for any damages to each land owner and obtains their final acknowledgement.

4. During maintenance, POWERGRID consults the individual landowners, obtains their approval and pays compensation for any damage to property.

SUBSTATIONS

1. POWERGRID identifies location of the substation and notifies the area under LA Act.

2. Public consultation is a part of LA Act. Under Section 4 of LA Act, a notification is published in the official Gazette and in two local daily newspapers (at least one of which is in the local regional language) about the details of the project. Any objections related to the land to be acquired are made to the collector in writing. Under section 5a, the District Collector hears the public objections by calling a public meeting, if so desired. DC sends report along with recommendations along with details of proceedings to the state government. DC issues notice under section 6 only after he receives the state government's approval.

3. Under Section 6 of LA Act, the DC issues a notice informing the public about the land to be acquired and invites their claims. All effective people informed individually. Compensation is paid to public according to local norms.

4. Besides publication consultation as an integral part of the LA Act, POWERGRID is committed to assessment of all probable impacts associated with land acquisition through its social assessment and management process which includes a socio-economic survey of the proposed substation sites. The socio-economic survey will assess both adverse and positive impacts of the project on aspects such as the natural resource base, developmental potential of the area, economy of the affected area, social

structure, norms and traditions. The socio-economic survey will include a complete household census recording members, property with legal rights and resources which are in possession or in use. Appropriate methods such as participatory rural appraisal and questionnaires will be used where necessary.

5. POWERGRID assess the social impacts of its land acquisition based on the socio-economic survey and designs its compensation packages in consultation with the people. POWERGRID organises meetings with the PAPs to evolve the RAP.

In order to further streamline the above process and to facilitate documentation of the same, and to discuss the following:

- complete project plan (i.e. its route and terminating point and substations, if any, in between);
- POWERGRID design standards in relation to approved international standards;
- health impacts in relation to EMF;
- measures taken to avoid public utilities such as school, hospitals, etc.;
- other impacts associated with transmission lines and POWERGRID's approach to minimising and solving them; and
- land acquisition details, proposed R&R measures and compensation packages in line with POWERGRID's policy

POWERGRID uses one or more of the following techniques at various stages. These include:

(1) ***Public meetings:*** POWERGRID will hold public meetings during its EAMP process at appropriate locations along the length of the transmission line. Public meetings will include one to one meetings with land owners during transmission tower spotting. Larger group meetings will be organised at strategic distances along the length of the transmission line. These will consist of all or at least most of the people to be directly affected by the concerned project and their local Gram Panchayat leaders.

(2) ***Informal small group meetings:*** Informal small group meetings will be conducted during walkover survey to find out local environmental and social issues along the proposed transmission line route. These meetings will be conducted by ESMT staff at appropriate intervals.

(3) ***Information brochures and Pamphlets:*** POWERGRID will make available information and project specific details to the public through Information brochures and Pamphlets. These brochures and pamphlets will contain information on: the overall project plan; design and construction standards; prudent deviations from design standards from transmission towers near schools, hospitals, human habitation; potential impacts and generic mitigation measures; resettlement and rehabilitation; and, compensation.

(4) ***Operating field offices:*** Information regarding the proposed transmission line can be accessed by the public from operating field offices. Information will be provided through brochures and pamphlets and any further queries will be responded by POWERGRID's staff.

(5) ***Local planning visits and site visits:*** POWERGRID staff will visit field sites. During this time informal contacts will be established with the local people. Reactions of the public to the project will be informally gauged.

(6) ***Response to public Enquires:*** ESMC/ESMT will respond to public enquiries by post or through notices in local news papers.

(7) ***Press release inviting comments:*** POWERGRID will publish details of proposed transmission routes in two local newspapers. Public will be invited to comment in writing or by meeting concerned POWERGRID officials within a specified period. POWERGRID will then incorporate relevant objections and suggestions.

(8) ***Project coordination committees:*** POWERGRID will set up grievance redressal committees to address the complaints and objections that PAP's may have regarding the project, its impacts or mitigation measures.

(9) ***Ombudsman or representative:*** For building a consensus on the project its impacts and mitigation measures, the PAPs will be encouraged to elect or appoint a trusted ombudsman or representative.

(10) ***Public Displays:*** POWERGRID will show their model projects to public/small representative groups.

DOCUMENTATION

The proceedings of the above consultation shall be documented. Details recorded will include date of the meeting, venue, number and possibly the names of the people attended, issues discussed and the outcome of the meeting.

The manager at DHQ will apply combinations of the appropriate techniques at various activities of a project depending upon the field conditions as shown below:

Milestones	Process	Techniques
1. Environmental & social screening & scoping for TLs	▪ Screen &scope Tls from an environmental and social perspective - spot verification	Informal small group meetings, local planning visits and site visits
2. Environmental & social screening & scoping for SS	▪ Screen &scope SS from an environmental and social perspective - spot verification	Informal small group meetings, Local planning visits and site visits
3. EAMP	▪ Tls & SS - undertake environmental review and formulate appropriate management measures	Public meetings, Press release inviting comments
4. SAMP	▪ Tls - negotiate compensation packages with revenue authorities and PAPs - finalise and document compensation and other management measures ▪ SS - finalise SS site - notify area under LAA - undertake detailed LA census	Informal small group meetings, local planning visits and site visits, Response to public enquiries Public meetings, Ombudsment or representative, Public

Milestones	Process	Techniques
	- final negotiations and documentation of agreements	display
5. Execution of Environmental management works	▪ Execute environmental management works - appropriate clearance for Transmission line ROW, etc. - compensatory afforestation	Information brochures and pamphlets, Operating field offices, Response to public enquiries
6. Execution of Social management works	▪ Tls - pay compensation as agreed and documented in SAMP and execute other measures ▪ SS - deposit compensation and take possession of land - execute R&R measures as prescribed in the SAMP	Information brochures and pamphlets, Operating field offices, Response to public enquiries Information brochures and pamphlets, Operating field offices, Response to public enquiries
7. Environmental and Social monitoring	▪ Monitor EAMP measures - maintenance of ROW - progress on compensatory afforestation ▪ Monitor SAMP measures - appropriate compensation and other measures during maintenance of towers and lines - progress on R&R measure	Information brochures and pamphlets, Operating field offices, Response to public enquiries Informal small group meetings

ANNEXURE – 10

DETAILS OF PUBLIC CONSULTATION

Report on Public Consultation meeting held from 31.05.16 to 02.06.16 on construction of HVAC transmission lines under AC System Strengthening at Pugalur end for HVDC bipole link between WR (Raigarh) & SR (Pugalur)

As per the Environment and Social Policy and Procedure (ESPP), public consultation meeting was held on construction of HVAC transmission lines from under AC System Strengthening at Pugalur end for HVDC bipole link between Western Region (Raigarh) and Southern Region (Pugalur) at the following location/s

1. Ammapalyam, Arni Taluk, Thiruvanamalai District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the members of the panchayat, village heads along with the general public of the village. The list of participants along with photographs enclosed as Annexure 2.

POWERGRID officials were introduced to the villagers by Sri. Murali, Panchayat Member, who welcomed them to the meeting and informed that they were all very happy to hear about a prestigious project which is coming near their village and requested POWERGRID to support in the upliftment of the village youth by engaging them in any suitable construction works for this project.

Sri.CA Mathew, AGM, HVDC Pugalur CAO welcomed the public on behalf of POWERGRID to the public consultation meeting and briefed them about POWERGRID and the project. The importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general were also detailed.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks by Sri. Manivannan, Sr.Engineer, POWERGRID, Tiruvalam.

List of participants for the public consultation at Ammapalyam, village on 31.05.16

POWERGRID:

1.	Sri. CA Mathew	AGM / HVDC Pugalur CAO.
2.	Sri. Manivannan	Sr. Engg / Tiruvalam
3.	Sri. Rajamanikam	JE / Tiruvalam

Ammapalyam, Thiruvanamalai District:

1.	Sri. Murali	Panchayat member
2.	Sri. Seenu	Panchayat member
3.	Other villagers	

Total 25 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Ammapalyam, Thiruvanamalai District, Tamil Nadu

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
पावरग्रिड

765 / 400 के. वी. तिरुवलम उपकेन्द्र, के.आर.तांगल गाँव (पी.ओ.), काटपाडी तालूक, वेल्लोर-632 516, तमिलनाडु, दूरभाष : 04172-255522 / 255255
765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
ई-मेल / e-mail: pgthiruvalam@gmail.com / pgthiruvalam@yahoo.com

संदर्भ संख्या/Ref. No. SR-II/TVLM/TLC/4235 दिनांक/Date : 27/5/16

To

தலைவர்/The Panchayat President
கிராம பஞ்சாயத்து/Gram Panchayat
AMMAPPALYAM., THIRUVANAMALI DIST

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிடப்பட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your Village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்திய லிமிடெட்
POWER GRID CORPORATION OF INIDIA LIMITED

திருவலம் - புகலூர் 400 கி.வோ. இருவழி உயர்மின் அழுத்த பாதை
Thiruvalam – Pugalur 400 kV D/C Transmission Line.

இடம்/Venue : Melmudiyanur, Ammapalyam
தேதி மற்றும் நேரம் - 31/5/16 - 11.00AM
பொதுமக்கள் அனைவரும் இக்கூட்டத்தில் கலந்துக்கொள்ள அழைக்கின்றோம்.
All are requested to kindly attend the meeting.

இங்ஙனம்
M. Mathew
பவர்கிரிட்/POWERGRID
CA MATHEW

Annexure 2 (a): Attendance List – Ammapalyam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: AMMAPALAYAM /THIRUVANNAMALAI DIST.
Date: 31-05-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
01	C. RAJA	Ammapalayam	C.RAJA
02	U. Murali.	"	
03.	M. Murugesan	"	
04	R. Seeru	"	
05	M. Sankar	"	
06	A. Munisamy	"	
07	N. Arunachalam	"	
08	K. Amavasai.	"	
09.	R. Vallakannan	"	
10	A. Elumalai	"	
11.	S. Vinayagam	"	
12.	V. Saravanan.	"	
13	A. Rangasamy	"	
14	M. Rangasamy	"	

Annexure 2 (a): Attendance List – Ammapalyam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: AMMAPALAYAM
Date: 31-05-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
15	V. Elumalai	"	V. Elumalai
16	K. Ponmudi	"	K. Ponmudi
17	M. Rajvel	"	M. Rajvel
18	R. Ramu	"	R. Ramu
19	[illegible]	"	[illegible]
20	C. Chandrasekar	"	C. Chandrasekar
21	K. Sivakumar	"	K. Sivakumar
22	R. Sekar V.A	"	R. Sekar V.A
23	C.A. MATHEW	DGM/ Pugalur HVDC	31/5/16
24.	M. MANIVANNAN	Sr. Engineer TVLM.	31/5/16
25.	M. RAJAMANICKAM	JE. SG1.	M. Rajamanickam for 31.5.16

Annexure 2 (b): Few Photographs of the Public Consultation

Gathering at the meeting

Briefing of the project by POWERGRID officials

Annexure 2 (b): Few Photographs of the Public Consultation

Public consulttaion meeting venue

People seeking clarification on project

Annexure 3

Gist of clarifications raised by the villagers:

1. **Sri. Murali (Panchayat Member)**
   Question: What would be the compensation paid for land towards putting the towers there?

   Answer: *Tree / crop compensation would be paid as per the rates fixed by the revenue / forest / horticulture department officials of the state. As per the provisions of Indian Telegraph Act all rights on the land are prohibited to POWERGRID except the user rights, land for tower and ROW are not acquired and agriculture is allowed to continue. No compensation will be paid for the land, if the state government comes with any law on compensation the same will be followed.*

2. **Sri. R. Vallakannan (Villager)**
   Question: We are having power shortage. Can we get power from your project?

   Answer: *POWERGRID can only transmit power to the states, distribution to the household / village level is the responsibility of the state electricity board. This line will contribute to the development of power situation of the region.*

3. **Sri. Vinayagan (Villager)**
   Question: What is the benefit of this line to our village, as the land cost will also decrease after putting towers on our lands?

   Answer: *Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this project would be to the entire state of Tamil Nadu and the neighbouring states by transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario of the district and also the villages.*

4. **Sri. Munisamy (Villager)**
   Question: Will the power situation for the village improve due to this project? And will we get employment?

   Answer: *POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of this region would be improved with the transmission lines associated with this project.*

5. **Sri. Shankar (Villager)**
   Question: Will this project have any impact on our cattle which go for grazing in the fields? Will your company provide any infrastructural facilities to our village?

   Answer: *As a part of the Corporate Social Responsibility, POWERGRID would take up developmental activities in the villages along the routes of transmission line, after identifying the requirements of the village through a need based baseline survey. Groundwater will not be affected by the project. There will be no impact to the animals / cattle due to this project.*

2. Poosimalaikuppam, Arni Taluk, Thiruvanamalai District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the panchayat president, village heads, VAO along with the general public of the village and was conducted in the village primary school. The list of participants along with photographs enclosed as Annexure2.

POWERGRID officials were introduced to the villagers by Sri. Karunakaran, Panchayat President who welcomed to the meeting and expressed his happiness that such an important project is coming near their village and requested POWERGRID to help in upliftment of the village and employment for the villagers in the project construction works.

Sri.CA Mathew, AGM, HVDC Pugalur CAO welcomed the panchayat president and the public on behalf of POWERGRID to the public consultation meeting and briefed them about POWERGRID and the project. He introduced the project scheme to the public and briefed them about the importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general. It was also told that the public consultation is being held as per the Environment & Social policy of POWERGRID to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks and with a request to the public for their support in completion of the project by Sri. Manivannan, Sr.Engineer, POWERGRID, Tiruvalam.

List of participants for the public consultation at Poosimalaikuppam, village on 01.06.2016

POWERGRID:

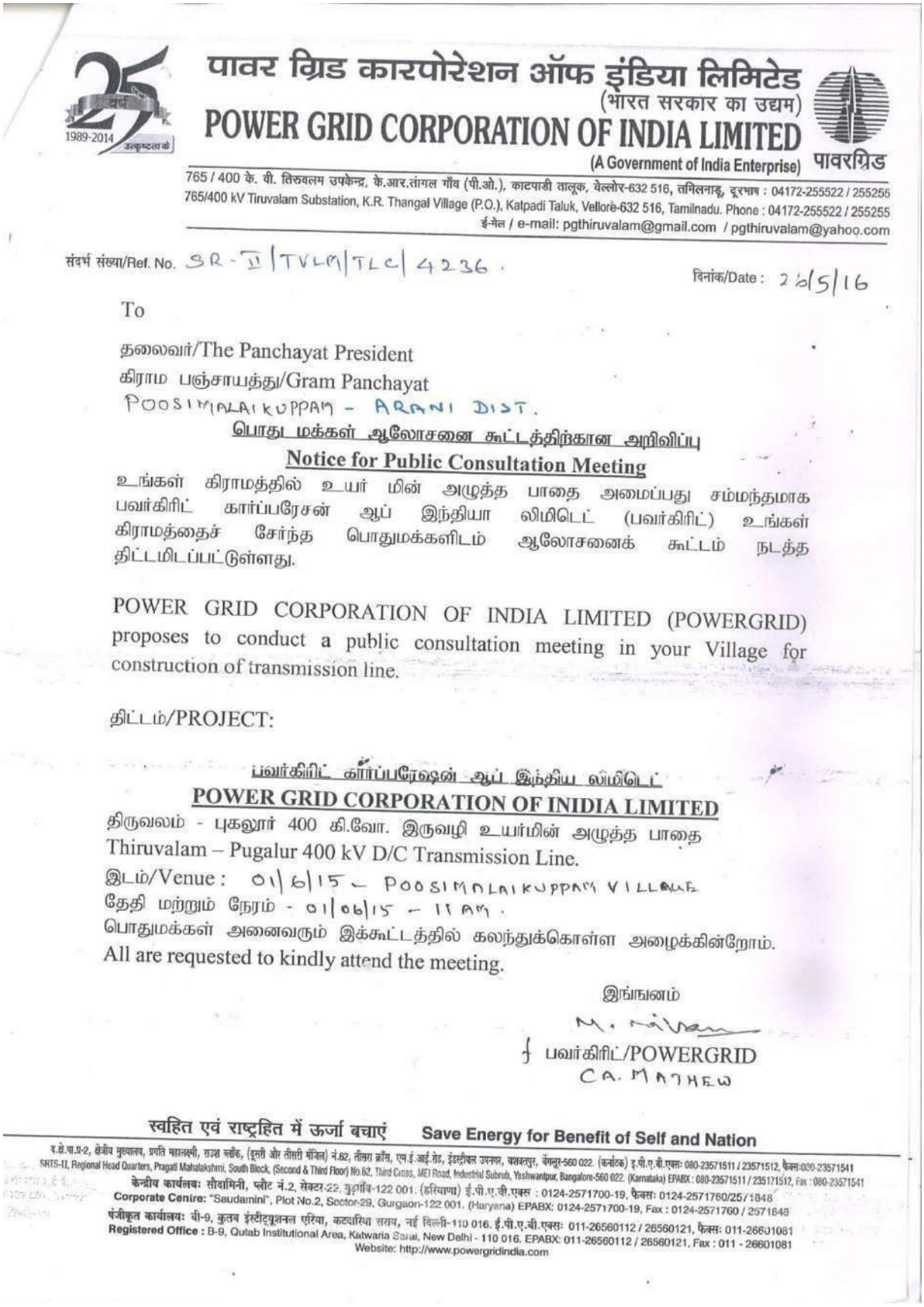
1.	Sri. CA Mathew	AGM / HVDC Pugalur CAO.
2.	Sri. Manivannan	Sr. Engg / Tiruvalam
3.	Sri. Rajamanikam	JE / Tiruvalam

Poosimalaikuppam, Arani District, Tamil Nadu

1.	Sri. Karunagaran	Panchayat President
2.	Sri. Santhisekar	Panchayat member
3.	Smt. Pushpa	Secretary
4.	Other villagers	

Total 77 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
पावरग्रिड

765 / 400 के. वी. तिरुवलम उपकेन्द्र, के.आर.तांगल गाँव (पी.ओ.), काटपाडी तालूक, वेल्लोर-632 516, तमिलनाडु, दूरभाष : 04172-255522 / 255255
765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
ई-मेल / e-mail: pgthiruvalam@gmail.com / pgthiruvalam@yahoo.com

संदर्भ संख्या/Ref. No. SR-II/TVLM/TLC/4236. दिनांक/Date : 26/5/16

To

தலைவர்/The Panchayat President
கிராம பஞ்சாயத்து/Gram Panchayat
POOSIMALAIKUPPAM - ARANI DIST.

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிடப்பட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your Village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்திய லிமிடெட்
POWER GRID CORPORATION OF INIDIA LIMITED
திருவலம் - புகலூர் 400 கி.வோ. இருவழி உயர்மின் அழுத்த பாதை
Thiruvalam – Pugalur 400 kV D/C Transmission Line.

இடம்/Venue : 01/6/15 – POOSIMALAIKUPPAM VILLAGE
தேதி மற்றும் நேரம் - 01/06/15 – 11 AM.

பொதுமக்கள் அனைவரும் இக்கூட்டத்தில் கலந்துக்கொள்ள அழைக்கின்றோம்.
All are requested to kindly attend the meeting.

இங்ஙனம்
M. Mathew
பவர்கிரிட்/POWERGRID
CA. MATHEW

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

द.क्षे.प.प्र-2, क्षेत्रीय मुख्यालय, प्रगति महालक्ष्मी, राउंड क्लॉक, (दूसरी और तीसरी मंजिल) नं.62, तीसरा क्रॉस, एम.ई.आई.रोड, इंडस्ट्रीयल उपनगर, यशवन्तपुर, बेंगलूर-560 022. (कर्नाटक) इ.पी.ए.बी.एक्सः 080-23571511 / 23571512, फैक्सः080-23571541
SRTS-II, Regional Head Quarters, Pragati Mahalakshmi, South Block, (Second & Third Floor) No.62, Third Cross, MEI Road, Industrial Suburb, Yeshwantpur, Bangalore-560 022. (Karnataka) EPABX : 080-23571511 / 23571512, Fax : 080-23571541
केन्द्रीय कार्यालयः सौदामिनी, प्लॉट नं.2, सेक्टर-29, गुड़गाँव-122 001. (हरियाणा) ई.पी.ए.बी.एक्स : 0124-2571700-19, फैक्सः 0124-2571760/2571848
Corporate Centre: "Saudamini", Plot No.2, Sector-29, Gurgaon-122 001. (Haryana) EPABX: 0124-2571700-19, Fax : 0124-2571760 / 2571848
पंजीकृत कार्यालयः बी-9, कुतब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110 016. ई.पी.ए.बी.एक्सः 011-26560112 / 26560121, फैक्सः 011-26601081
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016. EPABX: 011-26560112 / 26560121, Fax : 011 - 26601081
Website: http://www.powergridindia.com

Annexure 2 (a): Attendance List - Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
1.	P. CHANDRASEKARAN	Poosimalaikuppam	
2.	S. Dharani	"	S.தரணி
3.	R. Sumithira	"	R.சுமித்ரா
4.	K. Chitra	"	K.சித்ரா
5.	S. Pushpa	"	S. Pushpa
6.	C. Thangammal	"	C.தங்கம்மாள்
7.	V. Krishnaveni.	"	V.கிருஷ்ணவேணி
8.	K. Yellammal,	"	K.எல்லம்மாள்
9.	K. Punganam	"	K.பூங்காவனம்
10.	A. Malar	"	A. Malar
11.	S. Venda-	"	S. Venda
12.	V. Usha	"	V. Usha.
13.	T. Barathi	"	T. Barathi
14.	P. Valarmathi.	"	P. valarmathi

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
15	J. Murugan	Pusimalai Kuppam	
16	R. murugan	11	
17	V. GajaPathi	11	V. GajaPathi
18	S. [illegible]	11	
19	A. [illegible]	11	
20	[illegible]	11	
21	D. Govindha Samy	11	
22	J. Sumathi	11	
23	P. Ramesh.	11	
24	V. Muni [illegible]	11	
25	G. Arumugam	11	
26	P.C. Sadagopal	11	
27	P. Saradha	11	P. Sadha.
28	J. Kala	11	
29	G. Santhi.	11	

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name & sign	Village	Signature
30	S. Santhisekar.	Poosimalaikuppa	S. சாந்திசேகர்
31	K. Selvi	11	V. mageshwari
32	J. Sarasvathi	11	Kanaka Selvi
33	M. Thanaliyammal	11	Vijaya
34	M. Chinnathai	11	R. Sumathi
35	N. Ravathi	11	Pachammal.
36	G. Dhanam	11	G. Dhanam.
37			
38	[illegible] (Saraswathi)	11	S. Chandimath.
39	(Gowri)	11	Tamil Selvi
40	[illegible]		
41	P. Uma	11	[illegible]
42	J. Kavitha	11	J. [illegible]
43	S. Malathi	11	S. Malathi
44	K. Rani	11	K. [illegible]
45	U. Sathiya	11	U. Sathya
46	S. Rajalakshmi	11	S. [illegible]

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name & Sign	Village	Signature
47	G. KARUNAKARAN	poosimalaikuppam	G. Karunakaran
48	R. Sugunthi	"	V. Shivamala
49	N. Kamachi	"	P. Samundeswari
50	N. [illegible]	"	[illegible]
51	M. Manikandan	"	R. Santhi
52	V. Vasugammal	"	S. Sumithi
53	B. Kalapana	"	M. Vijiya
54	S. Pushpa	"	G. Selvi
55	V. Priya	"	M. Manjula.
56	V. Selvi	"	S. Unnamalai
57	V. Saraswathi	"	K. Jayaraman
58	R. Manjula.	"	K. Arumugam
59	T. Hindumathi	"	S. Anathan
60	R. Savithri.	"	A. Kannan
61	P. Subramani	"	P. [illegible]
62	D. Singh.	"	[illegible]

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
63	M. Govindaraj	Pusimalaikuppam	
64	N. Annchi	11	
65	J. kathirvel	11	
66	K. Sampath	11	K Sampath
67	K. Ganesha	11	D. Anbazhagan
68	S. Sivakantha.	11	D. Devi
69	S. Vijaya Rekha	11	R. Puniya
70	R. Vasantha	11	R. Vara Lakshmi
71	M. Nirmalan	11	S. Samundeswari
72	D. Kavitha	11	S. Selvi
73	P. Chinnapapa	11	K. Uma
74	S. Amutha	11	L. Lakshmi
75	K. Chandiran	11	K. Meenachi
76	R. Meena	11	M. Meenachi
77	C.A. MATHEW	DGM/POWERGRID	

Annexure 2 (b): Few Photographs of the Public Consultation

POWERGRID officials introducing the project

Public gathering at the meeting

Annexure 2 (b): Few Photographs of the Public Consultation

People seeking clarification

POWERGRID officials clarifying the queries

Annexure 3

Gist of clarifications raised by the villagers:

1. **Sri. Karunagaran (President)**
   Question: What would be the land compensation paid to the villagers for putting the towers? Will you improve the infrastructural facilities in our village?

   Answer: Tree / crop compensation would be paid for the tower area as per the rates fixed by the revenue / forest / horticulture authorities of the state. No land compensation will be paid, however if the state government orders the same will be looked into & paid accordingly.
   POWERGRID will take up developmental activities for the villages along the line route / near the substation, after conducting a need based baseline survey to identify the requirements of the village.

2. **Sri. Subramani (Villager)**
   Question: What will be the benefit of this line to our village if this goes through our village and from our lands? Will there be any effect on health of the people and our cattle?

   Answer: *Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this line would be to the entire state of Tamilnadu and the neighbouring states for transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario for the district and the villages. There is no recorded evidence on health impact due to transmission lines, either in humans or animals.*

3. **Sri. Sarathi (Villager)**
   Question: Can POWERGRID give continuous power to our village? Any employment will be given to the qualified youth of our village?
   Answer: *POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of the region will be improved with this project. Local people will be engaged during construction of line and engagement will be as per their skill set.*

4. **Sri. Govindasamy (Villager)**
   Question: What is the route of the transmission line, any paper notice is published? What is the time schedule of this project?

   Answer: *This line is a 400kV D/C transmission line from Thiruvalam to Pugalur in Tamil Nadu. Paper publication on the list of villages (tentative) along the route of the transmission line is published in Tamil and English papers. It is being implemented in a compressed time schedule of 36 months*

3. Kalar & Sathur, Arcot Taluk, Vellore District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the panchayat president, panchayat members along with the general public of the village. This meeting was conducted in the gram panchayat building. The list of participants along with photographs enclosed as Annexure2.

POWERGRID officials were introduced to the villagers by Sri. SP. Vengateshan, who welcomed to the meeting and expressed his happiness that such an important project for the state is coming near their village and requested POWERGRID to help in getting employment for the villagers in this project construction.

Sri.CA Mathew, AGM, Pugalur HVDC welcomed the panchayat president and the public on behalf of POWERGRID to the public consultation meeting and described about the proposed project and its requirement in the power scenario of Tamil Nadu state. He also told about the role of POWERGRID in the field of interstate transmission of power from far away states to Tamil Nadu and other southern states of the country. It was also briefed the public consultation was being held as per the Environment and Social Policy and Procedures (ESPP) of POWERGRID to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks and with a request to the public for their support in completion of the project by Sri. Manivannan, Sr. Engg Tiruvalam.

List of participants for the public consultation at Sathur Village, Arcot District on 02.06.2016

POWERGRID:

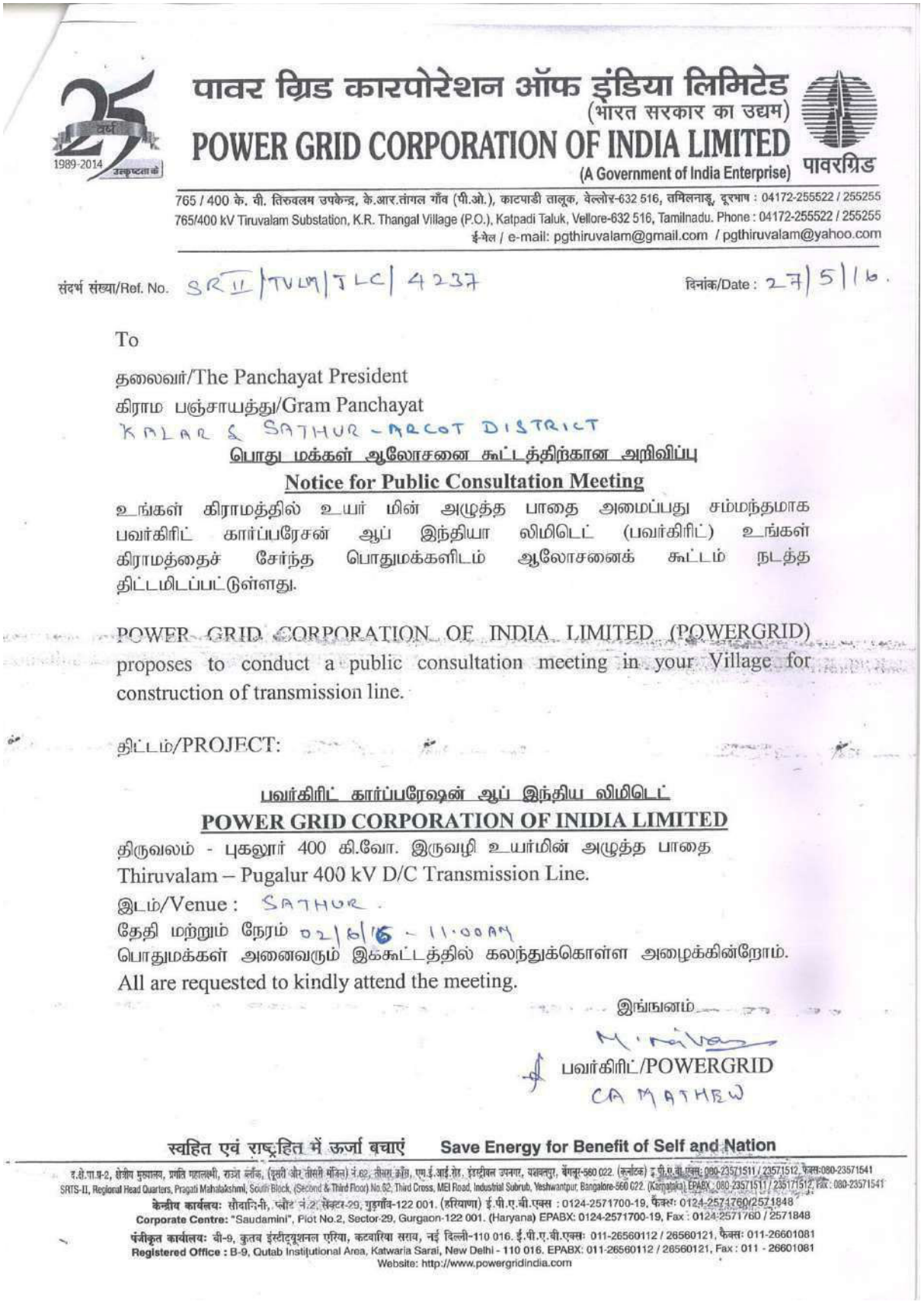
1.	Sri. CA Mathew	AGM / HVDC Pugalur CAO.
2.	Sri. Manivannan	Sr. Engg / Tiruvalam
3.	Sri. Rajamanikam	JE / Tiruvalam

Kalar & Sathur Village, Arcot District, Tamil Nadu

1.	Sri. SP. Vengateshan	Panchayat President
2.	Sri. Veeraragavan	Panchayat Secretary
3.	Other villagers	

Total 24 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Kalar & Sathur, Vellore District, Tamil Nadu



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
पावरग्रिड

765 / 400 के. वी. तिरुवलम उपकेन्द्र, के.आर.तंगल गाँव (पी.ओ.), काटपाडी तालूक, वेल्लोर-632 516, तमिलनाडु, दूरभाष : 04172-255522 / 255255
765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
ई-मेल / e-mail: pgthiruvalam@gmail.com / pgthiruvalam@yahoo.com

संदर्भ संख्या/Ref. No. SRII/TVLM/JLC/4237 दिनांक/Date : 27/5/16.

To

தலைவர்/The Panchayat President
கிராம பஞ்சாயத்து/Gram Panchayat
KALAR & SATHUR - ARCOT DISTRICT

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிடப்பட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your Village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்திய லிமிடெட்
POWER GRID CORPORATION OF INIDIA LIMITED

திருவலம் - புகலூர் 400 கி.வோ. இருவழி உயர்மின் அழுத்த பாதை
Thiruvalam – Pugalur 400 kV D/C Transmission Line.

இடம்/Venue : SATHUR.
தேதி மற்றும் நேரம் 02/6/16 - 11:00AM
பொதுமக்கள் அனைவரும் இக்கூட்டத்தில் கலந்துக்கொள்ள அழைக்கின்றோம்.
All are requested to kindly attend the meeting.

இங்ஙனம்

M. Mathew

பவர்கிரிட்/POWERGRID
CA MATHEW

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

द.क्षे.पा.ग्रि-2, क्षेत्रीय मुख्यालय, प्रगति महालक्ष्मी, राउंड ब्लॉक, (दूसरी और तीसरी मंजिल) नं.62, तीसरा क्रॉस, एम.ई.आई.रोड, इंडस्ट्रीयल उपनगर, यशवन्तपुर, बैंगलूर-560 022. (कर्नाटक) द.पी.ए.बी.एक्स: 080-23571511 / 23571512, फैक्स:080-23571541
SRTS-II, Regional Head Quarters, Pragati Mahalakshmi, South Block, (Second & Third Floor) No.62, Third Cross, MEI Road, Industrial Subrub, Yeshwantpur, Bangalore-560 022. (Karnataka) EPABX : 080-23571511 / 23571512, Fax : 080-23571541
केन्द्रीय कार्यालय: सौदामिनी, प्लॉट नं.2, सेक्टर-29, गुड़गाँव-122 001. (हरियाणा) ई.पी.ए.बी.एक्स : 0124-2571700-19, फैक्स: 0124-2571760/2571848
Corporate Centre: "Saudamini", Plot No.2, Sector-29, Gurgaon-122 001. (Haryana) EPABX: 0124-2571700-19, Fax : 0124-2571760 / 2571848
पंजीकृत कार्यालय: बी-9, कुतब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110 016. ई.पी.ए.बी.एक्स: 011-26560112 / 26560121, फैक्स: 011-26601081
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016. EPABX: 011-26560112 / 26560121, Fax : 011 - 26601081
Website: http://www.powergridindia.com

Annexure 2 (a): Attendance List – Kalar & Sathur, Vellore District, Tamil Nadu

Village: SATTUR / ARCOT TALUK
Date: 02-06-2016

Public Consultation Meeting – Attendance

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
01	Sri. S. M Venkatesh	SATUR.	
02	" S.E. Vinayagam	"	
03	" V. Kirishnan	"	
04	" M. Sarathi	"	
05	" S.V. Perumal	"	
06	" S.B. Ponnusamy	"	
07	" G. Velmurugan	"	
08	" R. Anadan	"	
09	" S.A. Viswanathan	"	
10	" M. SUBRAMANI	"	
11	" S.T. Kannayeram	"	
12	" V. Manikandan	"	
13	" M. Karunakaran	"	
14	" V. ANANDHAN (President)	"	
15	" P. Anbu.	"	

Annexure 2 (a): Attendance List – – Kalar & Sathur, Vellore District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: SATTUR
Date: 02-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
16.	Smt. P. Mahalingam	Sattur	
17.	P. Balaraman	"	
18.	" M. Renu.	"	
19.	" V. Kathavarayan	"	
20.	" K. Mani	"	
21.	" M. RAJAMANICKAM	Thiruvalam 10361/ JE.Sg	
22.	" S. P. Venkateshen	Sattur	
23.	" S.M. Veeraragavan	"	
24.	C.A. MATHEW	DGM/POWERGRID	

Annexure 2 (b): Few Photographs of the Public Consultation

POWERGRID officials introducing the project

People seeking clarification

Annexure 2 (b): Few Photographs of the Public Consultation

POWERGRID official addressing the gathering

POWERGRID officials addressing the clarification

Annexure 3

Gist of clarifications raised by the villagers:

1. **Sri. Krishnan (Villager)**

   Question: Will POWERGRID acquire land for this project? Land value at current market price is good, but after drawing transmission line value will come down, what will be compensation for this diminished value? What are the steps taken by POWERGRID to minimize the disturbances during construction?

   Answer*:* POWERGRID is a central transmission utility guided by the Indian Telegraph Act and Electricity Rules 2003 in its construction and operation activities. As per the provisions of the telegraph act acquisition of any rights on the land is prohibited other than of the user right. Land for tower and right of way is not acquired and agricultural activities are allowed to continue as usual. Tree/crop compensation would be paid as per the rates fixed by the revenue/forest/horticulture authorities of the state and any other compensation which the state thinks necessary for the project and its people. If any orders are issued / directed by state government on compensation it will be paid.

   POWERGRID is committed towards sustainable growth and conservation of nature and natural resources, hence all due care to minimize the disturbance to the surrounding environment and public in particular will be taken up. Technology driven construction techniques are being used with due precautions to minimize disturbance to human habitation.

2. **Sri. Anandan (Villager)**

   Question: Will the power line affect agriculture in our area?
   Answer: Agricultural activities are allowed to continue below the transmission line, as usual. No affect on agriculture

3. **Sri. Manikandan (Villager)**

   Question: Please describe about the compensation package for drawing the line? Is the land compensation in addition to crop compensation?

   Answer: Tree/crop/ROW compensation would be paid as per the rates fixed by the district authorities of revenue/forest/horticulture department. However, as per the provisions of Indian Telegraph Act all rights on the land are prohibited to POWERGRID except the user rights, land for tower and ROW are not acquired and agriculture is allowed to continue. Hence no land compensation is provided. As told earlier if any orders are issued by state government compensation will be paid accordingly.

Report on Public Consultation meeting held on 12.12.15 & 16.12.15 for HVDC transmission lines from HVDC line Raigarh - Pugalur – North Trissur and associated AC System Strengthening at Pugalur end

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1. Muthalipalayam, Kundadam Taluk , Tiruppur District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the panchayat president, village heads, panchayat secretary along with the general public of the village and was conducted in the village primary school. The list of participants along with photographs enclosed as Annexure2.

POWERGRID officials were introduced to the villagers by Sri. Shanmugasundaram, who welcomed to the meeting and expressed his happiness that such a prestigious project is coming near their village and requested POWERGRID to help in getting employment for the villagers in this project construction.

Sri.CA Mathew, DGM, HVDC Pugalur CAO welcomed the panchayat president and the public on behalf of POWERGRID to the public consultation meeting and briefed them about POWERGRID and the project.

Sri. V. Saravanan, Chief Manager, introduced the project scheme to the public and briefed them about the importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general.

Sri.SanjuKishan, Sr.Environment Officer, RHQ, Bangalore briefed the Environment and Social Policy and Procedures (ESPP) of POWERGRID. It was informed that the public consultation was being held as per this policy to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks and with a request to the public for their support in completion of the project by Sri. Vishwanath, Sr.Engineer, POWERGRID, HVDC Pugalur CAO.

List of participants for the public consultation at Muthalipalayam village, Kundadam Taluk, Tiruppur District on 12.12.2015

POWERGRID:

1. Sri. CA Mathew — DGM / HVDC Pugalur CAO.
2. Sri. V Saravanan — Chief Manager /Ariyalur
3. Sri. Sanju Kishan — Sr. Environment Officer/ RHQ Bangalore
4. Sri. Vishwanath S.A — Sr. Engineer/ HVDC Pugalur CAO

Muthalipalayam, Tiruppur District, Tamil Nadu

1. Sri. Shanmugasundaram — Panchayat President& District panchayat council member
2. Sri. Palanisamy — Vice President
3. Sri. Rajamani — Secretary
4. Other villagers

Total 50 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Muthalipalayam, Tiruppur District, Tamil Nadu

पावर ग्रिड कारपोरेशन ऑफ इँडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
पावरग्रिड

Construction Area Office : Pugalur ± 800 KV HVDC Station
No.1, Old Court Street, Kangayam - 638 701, Tiruppur (Dist) e-mail: pglrhvdc@gmail.com

संदर्भ संख्या / Ref. No. SR-II/CAO/PGLR-HVDC/2015 दिनांक / Date : 04-12-2015

TO

தலைவர்/ The Panchayat President

கிராம பஞ்சாயத்து / Gram Panchayat

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கர்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்தியா லிமிடெட்

POWER GRID CORPORATION OF INDIA LIMITED

ராய்கர்ஹ் - புகளூர் - 800 கி.வோ ஹெச்.வி.டி.சி - ஒருவழி உயர் மின் அழுத்த பாதை

Raigarh- Pugalur 800 KV HVDC Transmission Line

இடம்/Venue: நடுநிலைப்பள்ளி,முதலிபாளையம்/Middle School, Muthalipalayam.

தேதி மற்றும் நேரம் - 12.12.2015/ 10.00 AM

பொதுமக்கள் அனைவரும் இக் கூட்டத்தில் கலந்தகொள்ள கோரப்படுகிறது.

All are requested to kindly attend the meeting

இங்ஙனம்

9/12/15

பவர் கிரிட்/POWERGRID

Southern Region & Transmission System-II, Regional Head Quarter, Near RTO Driving Test Track, Singanayakanahalli P.O.,
Off: Yelahanka - Doddaballapur Road, Yelahanka Hobli, Bangalore - 560 064.
पंजीकृत कार्यालय बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई-दिल्ली-110 016.दूरभाष : 011-26560112, 26560115, 26560193, 26564892 फैक्स : 011-26560039
Regd. Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016. Phone : 011 - 26560112, 26560115, 26560193,26564892 Fax : 011-26560039
स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं / Save Energy for Benefit of Self and Nation

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

S.No	Name	Village	Signature
1.	C.A. MATHEW D.G.M.	POWERGRID	
2.	V. SARAVANAN Chief Manager	"	
3.	Sanjukishan. P Sr. Environment Officer.	"	
4	Vishwanath. S. A Engr/Pugalur HVDC	"	
	P. [illegible]	[illegible]	[illegible]
	S. [illegible]	"	S. [illegible]
	V. [illegible]	"	V. [illegible]
	K. [illegible]	"	K. [illegible]
	S. [illegible]	"	S. [illegible]
	[illegible]	"	[illegible]
	P. [illegible]	"	[illegible]
	R. [illegible]	"	[illegible]
	C. [illegible]	"	[illegible]
	[illegible]	"	[illegible]

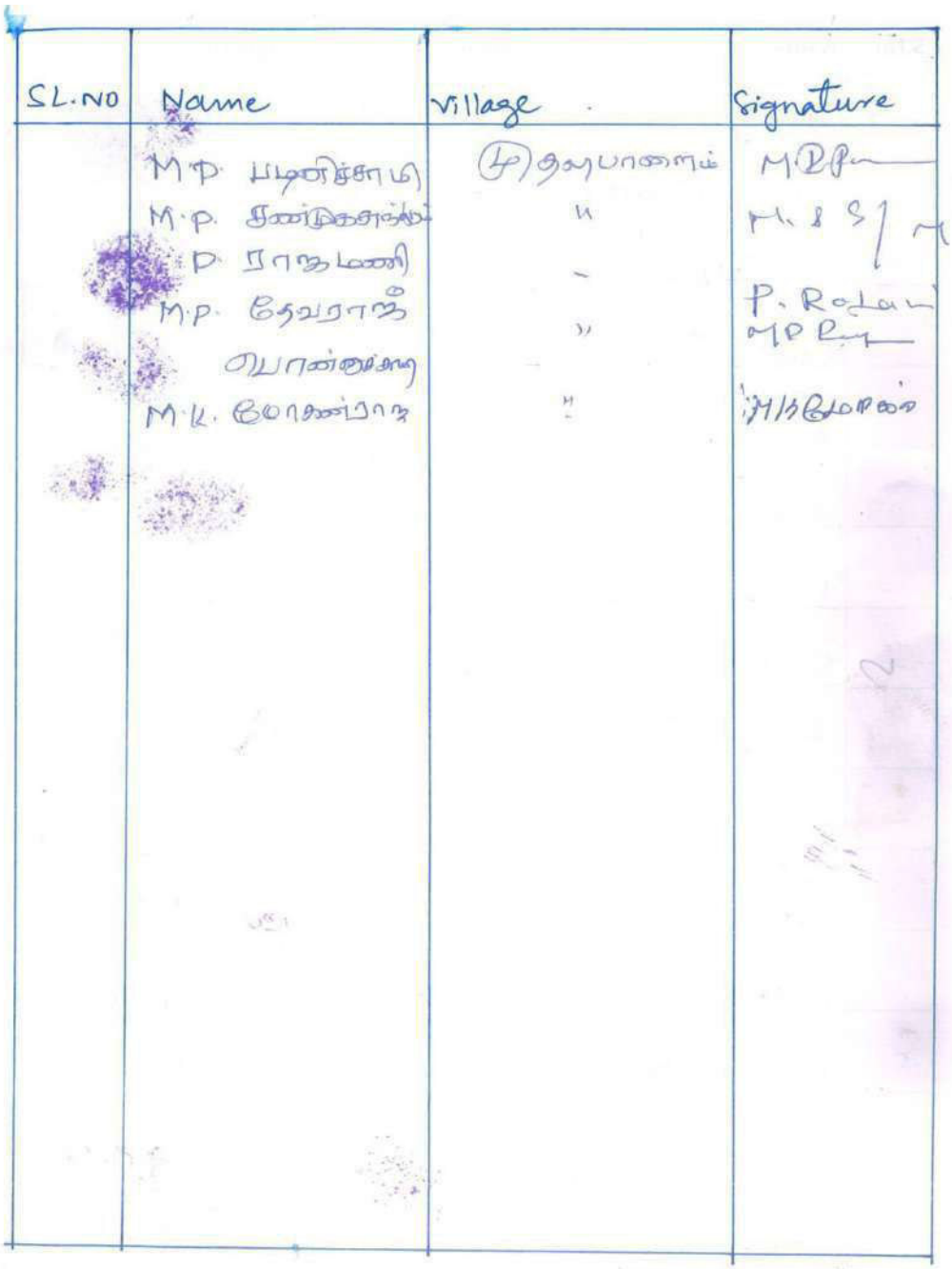
Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

SL. NO	Name	Village	Signature.
	சரோஜினி	முதலிபாளையம்	சரோஜா
	E. ராதா	"	E. ராதா
	M. வசந்தி	"	M வசந்தி
	M. சரஸ்வதி	"	M சரஸ்வதி
	[illegible]	"	லட்சுமி
	S. மகேஸ்வரி	"	மகேஸ்வரி
	சுப்ரமணி	"	சுப்ரமணி
	சேகர்	"	சேகர்
	அமராவதி	"	அமராவதி
	வீரம்மாள்	"	வீரம்மாள்
	M. ராணி	"	M. Rani
	கண்ணம்மாள்	"	கண்ணம்மாள்
	காளியம்மாள்	முதலிபாளையம்	LTI
	மீனா	"	LTI
	சீராமன்	"	LTI
	P. ரங்கசாமி	"	P. ரங்கசாமி
	[illegible]		[illegible]
	[illegible] சாமி		LTI
	[illegible] சாமி		LTI

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

S.No	Name	Village	Signature

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu



SL.NO	Name	Village	Signature
	M.P. [illegible]	(4) [illegible]	M.P.
	M.P. [illegible]	"	[illegible]
	P. [illegible]	-	
	M.P. [illegible]	"	P. Rotan MP
	[illegible]		
	M.K. [illegible]	"	[illegible]

POWERGRID officials introducing the project

POWERGRID officials welcoming the gathering

Panchayat president indicating the side from where old lines are passing

POWERGRID officials in conversation with the panchayat president

People seeking clarification

People seeking clarification

Annexure 3

Gist of clarifications raised by the villagers:

1. **Sri. Shanmugasundaram (President)**

   a. Question: What would be the compensation paid to the villagers for the land used for putting towers?

   Answer: *Adequate Tree / crop compensation would be paid as per the rates fixed by the district authorities of revenue / forest / horticulture department and as per the guidelines of Ministry of Power (MoP).*

   b. Question: Will you improve the water facility / approach road in our village?

   Answer: *Under corporate social responsibility POWERGRID would take up developmental activities in the villages along the line route after identifying the needs of the village after a baseline survey.*

2. **Sri. Palanisamy (Villager)**

   a. Question: Can POWERGRID give continuous power to our village? Any employment will be given to qualified youth of our village?

   Answer: *POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of this region would be improved with this project. Local people will be engaged during construction of line and engagement will be as per their skill.*

3. **Sri. Devaraj(Villager)**

   a. Question: What will be the benefit of this line to our village if this goes through our village and from our lands? Will there be any effect on health of the people and cattle?

   Answer: *Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this line would be to the entire state of Tamilnadu and the neighbouring states for transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario for your village, indirectly. No impact on the health of the people and the cattle.*

2. Arasampalayam, Pollachi Taluk, Coimbatore District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the general public of the village as the panchayat president and vice president could not make it due to the MLA visit in that area. This meeting was conducted in a community hall near panchayat. The list of participants along with photographs enclosed as Annexure2.

Sri.Ravindran, DGM, Palakkad welcomed the public on behalf of POWERGRID to the public consultation meeting and described about the proposed HVDC line construction project and its requirement in the power scenario of Kerala state and described about the role of POWERGRID in the field of interstate transmission of power from far away states to Kerala.

Sri. V. Saravanan, Chief Manager, introduced the project scheme to the public and briefed them about the importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general.

Sri. Sanju Kishan, Sr. Environment Officer, RHQ, Bangalore briefed the Environment and Social Policy and Procedures (ESPP) of POWERGRID. It was informed that the public consultation was being held as per this policy to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks by Sri. Rajeev, AE, POWERGRID, Pallakad.

List of participants for the public consultation at Arasampalayam, Pollachi Taluk, Coimbatore District, Tamil Nadu on 16.12.2015

POWERGRID:

1. Sri. Ravindran — DGM / Palakkad
2. Sri. Saravanan — Chief Manager / Ariyalur
3. Sri. Sanju Kishan — Sr. Environment Officer/ RHQ Bangalore
4. Sri. Sugumar — Sr.Engineer, Udumalpet
5. Sri. Rajeev — AE/ Palakkad

Arasampalayam Coimbatore District, Tamil Nadu

6. Villagers

Total 25 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Arasampalayam Coimbatore District, Tamil Nadu

பவர் கிரிட் கார்பரேசன் ஆப் இந்தியா லிமிடெட்
(ஓர் இந்தியா அரசு நிறுவனம்)

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)

पावरग्रिड

400/220 கி.வோ. துணை மின்நிலையம்
மண்ணுகாடு/சுட்டிபாற, வேங்கோடி P.O. எலப்புள்ளிபாறா
பாலக்காடு மாவட்டம், கேரளா - 678 622, Ph : 0491-2004625
e-mail : palakkadss@yahoo.com

பொதுமக்கள் ஆலோசனை கூட்டம் அறிவிப்பு

Notice for Public Consultation Meeting

புகலூர் (சிறுகிணர்) திருச்சூர் (மண்ணுத்தி) ±320 கி.வோ, உயர் மின்னழுத்த டி.சி. பாதை அமைப்பது தொடர்பாக அரசம் பாளையம் பஞ்சாயத்தில் ஒரு பொதுமக்கள் ஆலோசனை கூட்டம் நடத்த பவர்கிரிட் கார்பரேசன் தீர்மானித்துள்ளது, இந்த ஆலோசனை. கூட்டத்தில் பொதுமக்கள் அனைவரும் பங்குபெறுமாறு கேட்டுகொள்ள படுகிறார்கள்.

Power Grid Corporation of India Propose to conduct a public Consultation meeting at Arasampalayam Panchayath Auditorium for construction of **±320 KV** Pugalur (Sirukinar) - Thrissur (Mannuthy) HVDC Overhead line.

திட்டம் / Project	:	± 320 கி.வோ. புகலூர் (சிறுகிணர்) திருச்சூர் (மண்ணுத்தி) உயர்மின்னழுத்த டி.சி. பாதை ±320 KV, Pugalur (Sirukinar) -Thrissur (Mannuthy) HVDC Overhead Transmission line
இடம் / Venue	:	அரசம்பாளையம் கிராம பஞ்சாயத்து திடல் Arasampalayam Panchayath Auditorium
தேதி / Date	:	16-12-2015
நேரம் / Time	:	மதியம் 2.00 மணி / 2.00 p.m.

இப்படிக்கு
பொது மேலாளர்/Dy. General manager
பவர்கிரிட் கார்பரேசன்
Powergrid Corporation of India Ltd.

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Annexure 2 (a): Attendance List – Arasampalayam, Coimbatore District, Tamil Nadu

Sl.No.	Name	Village	Signature
1	K. RAVINDRAN	POWERGRID	
2			
3	Sanjukishan	Powergrid	
4	M. Sugumar	Powergrid	
5	AR Narayanaswamy	Arasampalayam	
6			
7			
8		"	
9	A.P. Somasundaram	"	
10			
11		"	
12	Ranjan	Arasampalayam	
13	Mayan	Arasampalayam	
14		"	
15		"	
16		"	
17	Ashok Babu	Arasampalayam	

Power grid Corporation of India Limited

Annexure 2 (a): Attendance List – Arasampalayam, Coimbatore District, Tamil Nadu

Sl.No.	Name	Village	Signature
18			
19			
20			
21			
22			
23			
24	Rayappan	Arasampalayam	
25	Murugesan	"	
26	Saraswamma	"	
27		"	
28		"	
29	P. K. Rajan	Powergrid	
30			
31			
32			
33			
34			

Power grid Corporation of India Limited

Annexure 2 (b): Photographs

POWERGRID officials introducing the project

Addressing the clarification

Annexure 2 (b): Photographs

Villagers at the meeting

Officials addressing the gathering

Annexure 3

Gist of clarifications raised by the villagers:

1. **Sri. A.P. Somasundaram (Villager)**

   Question: What is the exact route of this Transmission line project?

   Answer: *The transmission line is proposed through underground cabling along NH-47 from Trichur to Vadakancheri in Kerala, subsequently its overhead line till Pugalur in Tamilnadu. Detailed survey is in progress for underground portion for route finalization.*

2. **Sri. A.R Narayana Swamy (Villager)**

   Question: Will POWERGRID acquire land for this project? If we will raise objection on this project what will be the next step? Land value at current market price is good, but after drawing transmission line value will be diminished, what will be compensation for this diminished value?

   Answer*: No acquisition is envisaged in construction of transmission line; only for substation land is purchased or acquired. Tree/crop compensation would be paid as per the rates fixed by the authorities of revenue/forest/horticulture department of the state.* ROW compensation will be as per the Ministry of Power (MOP) and state guidelines. POWERGRID is a CTU guided by the Indian Telegraph Act and Electricity Rules 2003 in its construction and operation activities.

3. **Sri. K. Muthusamy (Villager)**

   Question: Is there any power tapping point in between Pugalur and Trichur?

   Answer*: No tapping is possible in this high voltage line, only a transition station will be there between underground and overhead portion at Vadakancheri, Kerala.*

4. **Sri. Senthil Kumar (Villager)**

   Question: Time schedule of the project?

   Answer*: It is being implemented in a compressed time schedule of 36 months.*

ANNEXURE – 10

ESTIMATED BUDGET

Budget Estimate

Total line length - **615 km approx.**
Total tower locations - **1590 nos. approx.**

A. Compensation

1 Forest

- Total Forest Involvement - **23.00 ha**.
- Forest Compensation- (@ 20 lakhs/ha.) - **Rs. 460.00 lakhs**

2. Crop & Trees

- Line length in Private /Revenue land - **610 km**.
- Crop/tree compensation- (@5 lakhs/km) - **Rs. 3050.00 lakhs**

3. Land Compensation for Tower Base & RoW corridor - **Rs. 24520.00 lakhs**
(Considering line corridor of 362 km in ' agricultural land in rural setting' with compensation@15 lakhs/acre,178 km in Urban/Semi-urban land near Cities/Towns with compensation @ 25 Lakhs/ acre & 70 km in Urban land near Big Cities/Metro Towns with compensation @ 50 Lakhs/ acre)

4. EMP Mitigation* - **Rs 15.00 lakhs**

Sub Total (A) = Rs. 28045.00 lakhs

B. Implementation Monitoring & Audit

i) Man-power involved for EMP implementation & Monitoring in entire route of Transmission lines (Rs.10,000/- x 615 km) - **Rs. 61.50 lakhs**

ii) Independent Audit (LS)** if needed - **Rs. 10.00 lakhs**

Sub Total (B) = Rs. 71.50 lakhs

Grand Total (A+B) = Rs. 28116.50 lakhs

* Most of the EMP related cost included in Contractor scope and is part of overall bidding cost. However, provision for Rs. 15.00 lakhs has been made to meet future contingency, if any

**Generally not required for Environment Category B projects under ADB SPS 2009.

ANNEXURE – 11

FORMAT FOR ENVIRONMENT SAFEGUARD MONITORING REPORT

Environmental Safeguard Monitoring Report

Reporting Period {From Month, Year to Month, Year}
Date {Month, Year}

Title of the Project {Example: SRI: Green Power Development and Energy Efficiency Improvement Investment Program}

Prepared by the {Executing Agency} for the Asian Development Bank

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