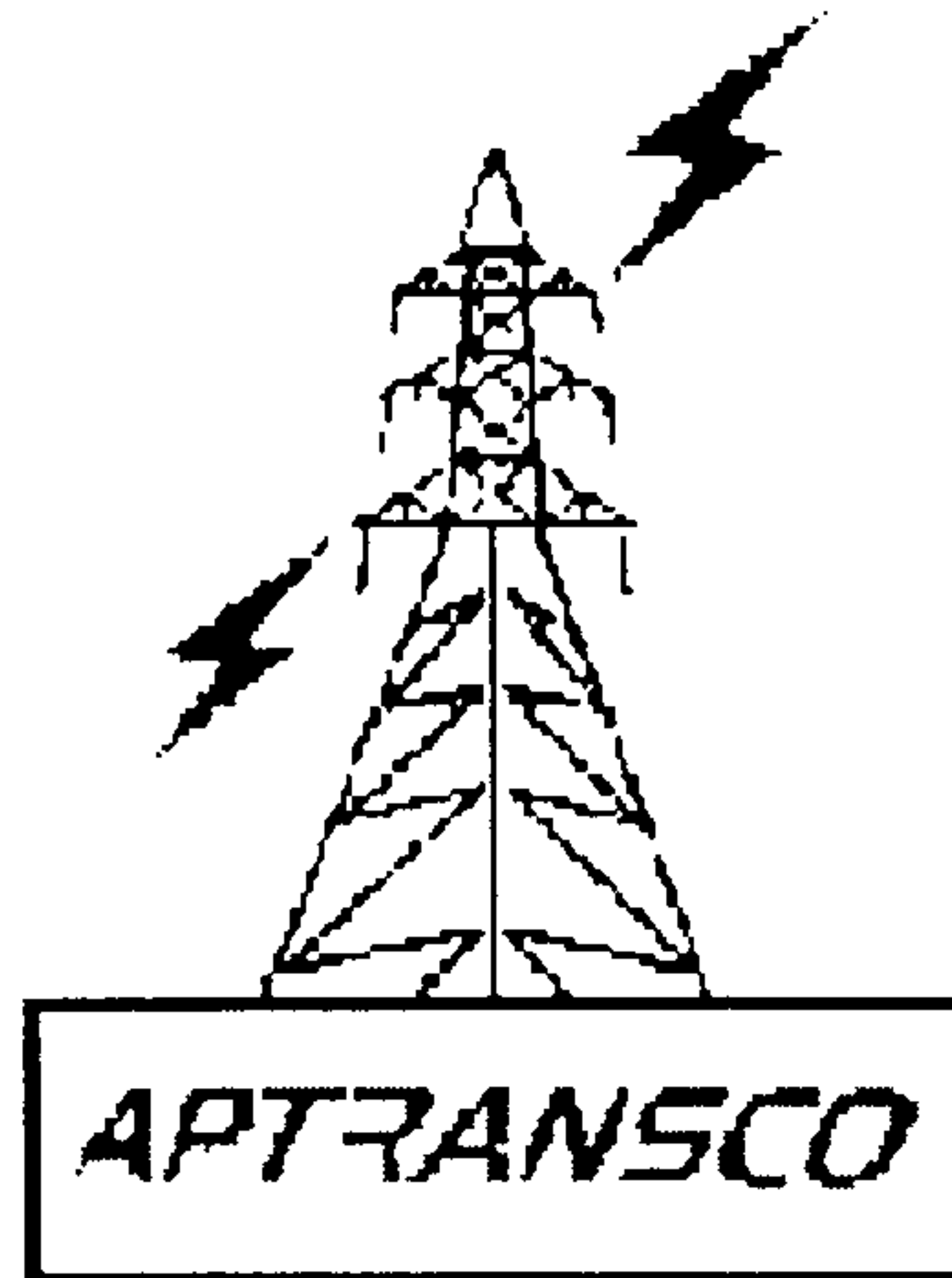


TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED



STANDARD SCHEDULE OF RATES

**FOR EHT TRANSMISSION LINES AND
SUBSTATIONS OF 220kV & 132kV**

FOR THE YEAR 2013 -14

(With effect from the date of issue of T.O.O. Ms.No.162, dated. 26.08.2013.)

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

APTRANSCO – Standard Schedule of Rates for 220kV & 132kV Transmission lines and Substations works for the year 2013-14 – Communicated – Regarding.

T.O.O. No. CE (Construction-2)/ Ms.No.162

dt. 26.08.2013

Read the following:-

- Ref:- 1). T.O.O.CE (Civil). Ms.No.148, dt.21.10.2009
 2).T.O.O.Ms.(CE-Construction-2) MS. No.150, dated.09.08.2012
 3).T.O.O.Ms.(CE-Construction-2) MS. No.311, dated.16.01.2013

ORDER

The Standard Schedule of Rates for 220kV & 132kV Transmission lines and Substations for the year 2013-14 approved by Transmission Corporation of Andhra Pradesh Limited in respect of item of works and materials pertaining to EHV Transmission lines and Substations are communicated herewith for adoption in preparation of estimates.

For all Civil item of works of EHV Transmission lines & substations, the rates that are approved in the common SSR 2013-14 for all engineering departments of Govt of A.P and the provisions made in the T.O.O.No.148, dated.21.10.2009 of APTRANSCO shall be adopted as already approved and communicated vide ref 1st cited.

The Standard Scheduled of Rates for 2013-14 will come into force from date issue of T.O.O.

Encl: As above.

(BY ORDER AND IN THE NAME OF TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED)

Sd/- S. SUBRAHMANYAM
 DIRECTOR (PROJECTS)

To

The Chief Engineer/ Construction -2/VS/Hyderabad.
 The Chief Engineer/ Construction -1/VS/Hyderabad.
 The Chief Engineer/ LIS/VS/Hyderabad.
 The Chief Engineer/ Construction/400kV /VS/Hyderabad.
 The Chief Engineer/ Transmission /VS/Hyderabad.
 The Chief Engineer /Civil/VS/Hyderabad.

The Chief Engineer/Telecom/Vidyut Soudha/Hyderabad
 The Chief Engineer /Zone/Metro/Hyderabad.
 The Chief Engineer/Zone/Rural/Hyderabad.
 The Chief Engineer/Zone/Kadapa.
 The Chief Engineer/Zone/Vijayawada.
 The Chief Engineer/Zone/Vishakapatnam.
 The Chief Engineer/Zone/Warangal.

The Superintending Engineer/TLC/Metro/Hyderabad.
 The Superintending Engineer/TLC/Rural/Hyderabad.
 The Superintending Engineer/TLC/Warangal.
 The Superintending Engineer/TLC/Vijayawada.
 The Superintending Engineer/TLC/Visakhapatnam.
 The Superintending Engineer/TLC/Karimnagar`
 The Superintending Engineer/TLC/Kadapa.
 The Superintending Engineer/TLC/LIS/Kurnool.

The Superintending Engineer/TL&SS/ Metro Circle / Hyderabad
 The Superintending Engineer/TL&SS/ Hyderabad Circle / Hyderabad.
 The Superintending Engineer/TL&SS/ Mahaboob Nagar.
 The Superintending Engineer/TL&SS/ Nalgonda
 The Superintending Engineer/O&M/400 KV L&SS/ Mamidipally
 The Superintending Engineer/O&M/400 KV L&SS/ Vemagiri.
 The Superintending Engineer/O&M/400 KV L&SS/ Kalpaka.
 The Superintending Engineer/TL&SS/ Warangal
 The Superintending Engineer/TL&SS/ Karimnagar
 The Superintending Engineer/TL&SS/ Nizamabad
 The Superintending Engineer/TL&SS/ Vijayawada
 The Superintending Engineer/TL&SS/ Nellore
 The Superintending Engineer/TL&SS/ Rajahmundry
 The Superintending Engineer/TL&SS/ Vizag
 The Superintending Engineer/TL&SS/ Kadapa
 The Superintending Engineer/TL&SS/ Kurnool

The Superintending Engineer/Telecom/Vidyut Soudha/Hyderabad.
 The Superintending Engineer/Telecom/Metro/Hyderabad.
 The Superintending Engineer/Telecom/Rural/Hyderabad.
 The Superintending Engineer/Telecom/Warangal.
 The Superintending Engineer/Telecom/Kadapa.
 The Superintending Engineer/Telecom/Vijayawada.
 The Superintending Engineer/Telecom/Vishakapatnam.

(Contd....3)

The Superintending Engineer/Civil /TLC/Hyderabad
 The Superintending Engineer/Civil/TLC/Warangal
 The Superintending Engineer/Civil/TLC/Vijayawada.
 The Superintending Engineer /Civil/TLC/Kadapa.
 The Superintending Engineer /Civil/TLC/Visakhapatnam

The Executive Engineer/TLC/RMS/Hyderabad.
 The Executive Engineer/TLC/Mahaboob Nagar.
 The Executive Engineer/TLC/Nalgonda.
 The Executive Engineer/TLC/Erragadda.
 The Executive Engineer/TLC/Sanga Reddy.
 The Divisional Engineer/ MRT / EHT / TLC / Hyderabad
 The Executive Engineer/TLC/Warangal.
 The Executive Engineer/TLC/Karimnagar.
 The Executive Engineer/TLC/Nizamabad.
 The Executive Engineer/TLC/Vijayawada.
 The Executive Engineer/TLC/Gunadala.
 The Executive Engineer/TLC/Guntur.
 The Executive Engineer/TLC/Nellore.
 The Executive Engineer /TLC/Ongole.
 The Executive Engineer/TLC/Thirupathi.
 The Executive Engineer/TLC/Rajahmundry.
 The Executive Engineer/TLC/Vizag.
 The Executive Engineer/TLC/Kurnool
 The Executive Engineer/TLC/LIS/Division-I/Kurnool.
 The Executive Engineer/TLC/LIS/Division-2/Kurnool.
 The Executive Engineer/TLC/Kadapa.

The Executive Engineer/Div-I/400kV L&SS/Mint Compound/Hyderabad.
 The Executive Engineer/Div-2/400kV L&SS/Mint Compound/Hyderabad.
 The Executive Engineer/Div-3/400kV L&SS/Mint Compound/Hyderabad.
 The Executive Engineer/Div-4/400kV L&SS/Warangal.

The Executive Engineer/Div-I/400kV L&SS/Vijayawada.
 The Executive Engineer/Div-I/400kV L&SS/Guntur.
 The Executive Engineer/Div-I/400kV L&SS/Krishnapatnam.
 The Executive Engineer/Div-I/400kV L&SS/Rajahmundry.

The Divisional Engineer/O&M 400kV TL&SS / Dichpally.
 The Divisional Engineer/O&M 400kV TL&SS / Nizamabad.
 The Divisional Engineer/O&M 400kV TL&SS / Gajwel.
 The Divisional Engineer/O&M 400kV TL&SS / Vemagiri.
 The Divisional Engineer/O&M 400kV TL&SS / Rajahmundry.
 The Divisional Engineer/O&M 400kV TL&SS / Chittoor.
 The Divisional Engineer/O&M 400kV TL&SS /Manubolu (Nellore district).
 The Divisional Engineer/O&M 400kV TL&SS /Veltur (Mahaboobnagar district).
 The Divisional Engineer/O&M 400kV TL&SS /Kalpaka (Visakhapatnam district).

(Contd....4)

The Divisional Engineer /TLC/TRE/Kadapa
 The Divisional Engineer/TL&SS / Chandrayangutta
 The Divisional Engineer/TL&SS / Moulali
 The Divisional Engineer/TL&SS / Erragadda
 The Divisional Engineer/ MRT / Metro Circle / Hyderabad
 The Divisional Engineer/ MRT / Hyderabad Circle / Hyderabad
 The Divisional Engineer/TL&SS / Mahaboobnagar
 The Divisional Engineer/TL&SS / Yeddumailaram
 The Divisional Engineer/TL&SS / Miryalaguda
 The Divisional Engineer/TL&SS / Nagarjunasagar
 The Divisional Engineer/ O&M / 400 KV / Mamidipally
 The Divisional Engineer/ TL&SS / Warangal
 The Divisional Engineer/ TL&SS / MRT / Warangal
 The Divisional Engineer/ TL&SS / Budidampadu
 The Divisional Engineer/ TL&SS / Karimnagar
 The Divisional Engineer/ TL&SS / Ramagundam
 The Divisional Engineer/ MRT / Nizamabad
 The Divisional Engineer/ TL&SS / Nirmal
 The Divisional Engineer/ TL&SS / Dichpally
 The Divisional Engineer/ MRT / TLC / Warangal
 The Divisional Engineer/ MRT / EHT / TLC / Vijayawada
 The Divisional Engineer/ MRT / EHT / TLC / Nellore
 The Divisional Engineer/ TL&SS / Vijayawada
 The Divisional Engineer/ TL&SS / Guntur
 The Divisional Engineer/ MRT / TL&SS / Vijayawada
 The Divisional Engineer/ MRT / TL&SS / Nellore
 The Divisional Engineer/ TL&SS / Nellore
 The Divisional Engineer/ TL&SS / Ongole
 The Divisional Engineer/ TL&SS / Bommur
 The Divisional Engineer/ TL&SS / Nidadavole
 The Divisional Engineer/ HVDC / TL&SS Circle / Rajahmundry
 The Divisional Engineer/ MRT / EHT / Rajahmundry
 The Divisional Engineer/ TL&SS / Gazuwaka
 The Divisional Engineer/ TL&SS / Garividi
 The Divisional Engineer/ MRT / TL&SS / Vizag
 The Divisional Engineer/ TL&SS /Kadapa
 The Divisional Engineer/ TL&SS / Yerraguntla
 The Divisional Engineer/ TL&SS / Tirupathi
 The Divisional Engineer/ EHT / MRT / Kadapa
 The Divisional Engineer/ MRT / TL&SS / Kurnool
 The Divisional Engineer/ MRT / TL&SS / Ananthapur
 The Divisional Engineer/ Windfarms / Ananthapur
 The Divisional Engineer/ TL&SS / Kurnool
 The Divisional Engineer/ TL&SS / Ananthapur
 The Divisional Engineer/ O&M / 400 KV / Kurnool
 The Divisional Engineer/ O&M / 400 KV Lines / Srisailam

(Contd...5)

The Executive Engineer/Civil/TLC/Mint Compound/Hyderabad.
 The Executive Engineer/Civil/TLC/Rajahmundry.
 The Executive Engineer/Civil/TLC/Kadapa.
 The Divisional Engineer/Quality Control/ Vidyut Soudha / Hyderabad

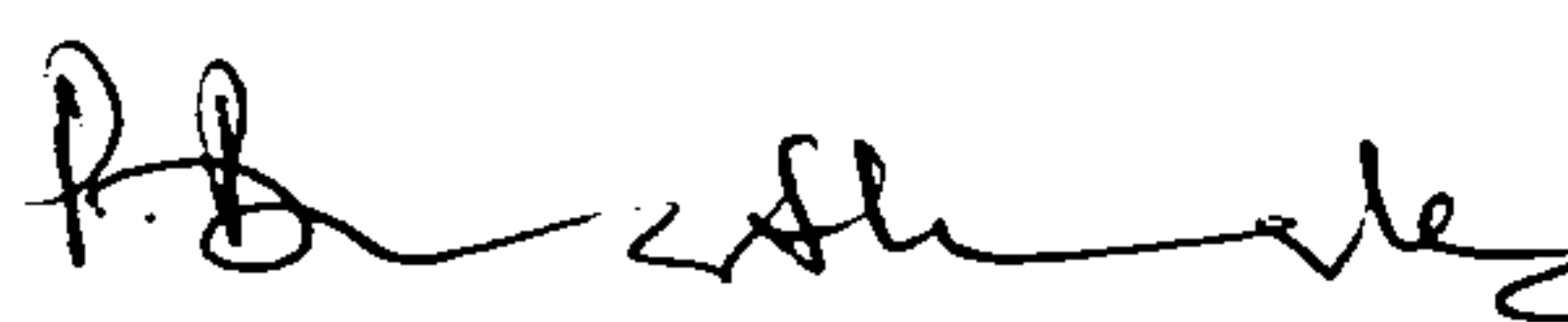
Superintending Engineer/Construction /PM-I /VS/Hyd.
 Superintending Engineer/Construction /PM-II/VS/Hyd.
 Superintending Engineer/PM-I/400 KV /VS/Hyderabad.
 Superintending Engineer/PM-II/400 KV /VS/Hyderabad.
 Superintending Engineer/LIS /VS/Hyderabad.
 Superintending Engineer/O&M/Lines/VS/Hyderabad.
 Superintending Engineer/O&M/Substations/VS/Hyderabad.

Divisional Engineer-1/Construction-1/VS/Hyderabad.
 Divisional Engineer-2/Construction-1/VS/Hyderabad.
 Divisional Engineer-3/Construction-1/VS/Hyderabad.
 Divisional Engineer-4/Construction-1/VS/Hyderabad.
 Divisional Engineer-1/Construction-2/VS/Hyderabad.
 Divisional Engineer-2/Construction-2/VS/Hyderabad.
 Divisional Engineer-3/Construction-2/VS/Hyderabad.
 Divisional Engineer-1/LIS/VS/Hyderabad.
 Divisional Engineer-2/LIS/VS/Hyderabad.
 Divisional Engineer/Design/Construction-1/VS/Hyderabad.

Divisional Engineer-1/PM-1/400kV Construction/VS/Hyderabad.
 Divisional Engineer-2/PM-1/400kV Construction/VS/Hyderabad.
 Divisional Engineer-1/PM-2/400kV Construction/VS/Hyderabad.
 Divisional Engineer-2/PM-2/400kV Construction/VS/Hyderabad.
 Eme-1/Transmission/VS/Hyderabad.
 Eme-2/Transmission/VS/Hyderabad.
 Eme-3/Transmission/VS/Hyderabad.
 DE/O&M Lines/Transmission/VS/Hyderabad.

PS to Chairperson Managing Director/APTransco/VS/Hyd.
 PS to Joint Managing Director/ HRD, Comml. IPC, & IT/APTransco/VS/Hyderabad.
 PS to Joint Managing Director/ V&S/ APTransco/VS/Hyderabad.
 PS to Director /Projects/ APTransco/VS/Hyderabad.
 ADE/Tech to Director /Grid,Transmission& Management/ APTransco/VS/Hyderabad.
 PS to Director /Finance & Revenue/ APTransco/VS/Hyderabad.
 The FA & CCA (A,E &R)/APTransco/VS/Hyderabad.
 ADE/Tech to Chief Engineer/Construction-2/APTransco/VS/Hyderabad

// FORWARDED BY ORDER //


 DIVISIONAL ENGINEER - 3 /PM-II
 O/o.Chief Engineer (Construction-2)
 Vidyut Soudha, Hyderabad.

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PREAMBLE

1. The Rates for the item of works (Line & Substations) involved under special conditions in the existing SSR 2013-14 are as follows:

(I) TRANSMISSION LINE WORKS:

Sl. No.	Description of work	% Over the basic labour rates
1.	River Crossing with JC type towers	100% extra
2.	2 nd Circuit Stringing with 1 st Circuit lives.	75% extra
3.	<u>Works under shutdown:</u> This is applicable under the following conditions only. i. Pre-programmed for interruption of line. ii. Pre-arranged replacement / rectification of line materials.	50% extra
4.	Dismantling works	75% of Normal Rate.
5.	Emergency Works such as break down works. This will not be applicable for pre-arranged shutdown works.	100% extra
6.	Stringing of railway crossings	100% extra
7.	National and State High way crossings	25% extra
8.	Tree cutting & Jungle Clearance in Tr. Line works as the works are in scattered areas.	100% extra
9.	DC Works under shutdown	100% extra

SUBSTATIONS AND OTHER WORKS:

Sl. No.	Description of work	% Over the Basic labour rates
1.	<u>Works under shutdown:</u> This is applicable under the following conditions only. i. Pre-programmed for interruption of equipment. ii. Pre-Programmed replacement of bus in Substation. iii. Pre-arranged replacement / rectification of equipment.	50% extra

Sl. No.	Description of work	% Over the Basic labour rates
2.	Dismantling works	75% of Normal Rate.
3.	<u>Emergency Works such as break down works.</u> <u>This will not be applicable for pre-arranged shutdown works.</u>	100% extra
4.	Idle trip (No load) rate of the low-bedded trailer for movement of Power Transformers.	50% of basic labour rate of loaded trip. Shortest distance from / to the place of availability of low bedded trailer shall be considered.

Note:- However if more than one special condition such as emergency, shutdown, 2nd circuit stringing with First circuit live and breakdown etc are applicable for a particular work item / situation, only one condition with maximum extra rate out of applicable special conditions can be allowed. Applying more than one special condition for any item is to be dispensed.

2 For EHT Transmission line works, Keeping scattered in nature, some extra provisions are provide and are as follows

- a. 5% extra provision on the basic rates of APTRANSCO towards scattered area mobilization efforts in general areas

Or

- b. 10% extra provision on the basic rates of APTRANSCO towards scattered area mobilization efforts in difficult areas. The concerned SE/TLC has to certify that entire line passes through difficult terrain / areas duly furnishing the justification.

Note:- If 10% extra toward mobilization efforts in difficult areas is applicable for a work, then the 5% extra towards mobilization effort in general areas is not applicable.

- c. Transmission line erection works, Uniform area allowance minimum of 25% on basic labour charges for the entire state as recommended by Board of Chief Engineers will be allowed against weighted average of area allowance mentioned in Schedule of rates except in Greater Municipal corporation limits. If the entire line is with in the Greater Municipal Corporation limits, area allowance shall be considered as mentioned in Common SSR 2013-14. This uniform area allowance is applicable only for the Transmission line erection works. However area allowance shall be considered as adopted from Common SSR 2013-14, for the works other than transmission line works.

- 3(a) 10% extra to the rate of earth flat (material) is allowed towards wastage, cleats and overlap etc., while preparing the estimate as the billing for this item is on Running Meters basis and after laying of earth mat.
- 3(b) For stringing of conductor for small modification works, if the length of the line is less than 0.5 KM, 0.5KM is considered and if the length of the line is greater than 0.5 KM and less than 1 KM, 1KM is considered, in the preparation of estimate.
- 3(c) For survey of small length of lines, if the length of line is less than 1KM, then 1KM is considered for survey of small length of lines in the preparation of estimate.
- 3(d) The rates for tree cutting and jungle clearance may be followed as per Common SSR of Govt of Andhra Pradesh.

4. AREA ALLOWANCES:

A) CORPORATIONS & MUNICIPALITIES:

- a) (i) 25% extra over the rates on labour component of works is allowed in all Municipal Corporation Limits of Andhra Pradesh except Greater Hyderabad, Greater Visakhapatnam and Vijayawada municipal Corporations (up to a belt of 12 Kms. from Municipal Corporation limits) and other corporations as notified by the Government from time to time.
- (ii) 40% extra over the rates on labour component of works for Greater Hyderabad, Greater Visakhapatnam and Vijayawada Municipal Corporation (up to a belt of 12 Kms. from Municipal Corporation limits).
- b) Allow 20% extra over basic rates on labour component of works in all District Headquarters and the remaining Municipal limits (up to a belt of 12 Kms. from Municipal limits).
- c) For works at Tirumala Hills in Chittoor District, 40% extra over the basic rates of labour component is allowed.
- d) For works at Horsely hills in Chittoor District, 30% extra over the basic rates of labour component is allowed.
- e) • 20% extra over the basic rates of labour component for Tirupathi Municipal Corporation is allowed.

B) JAIL COMPOUNDS:

15% extra is allowed over basic labour rates for the work in the Jail compounds. Only equivalent number of Man Mazdoor shall be provided in the Jail premises and no women Mazdoor are allowed inside.

C) INDUSTRIAL AREA:

20% over basic rates on labour component works allowed for works situated within 10 Kms belt of Industrial area of, Jeedimetla, Lingampally, Ibrahimpatnam, Tandur in Ranga Reddy District, Ibrahimpatnam, Vuyyuru, Jaggaiahpetta in Krishna District, Macherla, Gurajala, Challapalli in Guntur District Garividi in Vijayanagaram District, Kothur in Mahabubnagar District, Patancheru, Ramachandrapur in Medak District, Bibinagar in Nalgonda District, Ramagundam and Godavarikhani in Karimnagar District, Renigunta in Chittoor District and Yerraguntla & Mangampet in Kadapa District, Manchiryal, Mandamarri, Bellampalli in Adilabad District, Sarpaka, Kothagudem, Paloncha, Manguguru, Singareni Collieries in Khammam District, Kamalapur, Bhoopalpally of Warangal District, Wadepally of Nalgonda District, Nagapally (Centenary Colony, Begumpet "X" roads), Takkelapally of Karimnagar District, Hindupur, Tadipatri, Anantapur, Guntakal, Rayalcheruvu, Yadiki of Anantapur District and Adoni, Dhone, Cement Nagar, Nandyal, Kurnool, Yemmiganur & Bethamcherla of Kurnool District, Anakapally of Vishakhapatnam District.

D) AGENCY / TRIBAL AREAS:

- a) 25% extra is allowed for the works located with in the interior Agency / Tribal limits, i.e. for the works located with in & upto 16 KMs from any all weather route inside Agency / Tribal.
- b) 40% extra is allowed for the works located with in the interior Agency / Tribal limits, i.e. for the works located beyond 16 KMs from any all weather routes inside Agency / Tribal. The extra percentage under Agency / Tribal areas allowance may be allowed on the labour component and on the labour charges in the rates for conveyance of materials.

E) GHAT ROADS:

For Ghat Roads steeper than 1 in 20, the length of the road may be taken as 1.5 times the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned. Under compelling circumstances, the concerned Chief Engineer can adopt the equivalent length of road as 2 ½ times of actual length.

Note: If more than one area allowance (such as those) for (1) Municipalities (2) Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed.

5. 14% on basic labour rates towards for contractor's overheads and profit including labour importation is applicable only for Turnkey projects (New substations, Lines, 33kV features & Bay extension works) of more than 1 Crore and not applicable to O&M works and other than turnkey works.

Contractor's over heads and profit including Labour importation 14% is allowed on basic labour rates.

The overhead charges include the following:

- Site accommodation, setting up plant, access road, water supply, electricity and general site arrangements.
- Office furniture, equipment and communications.
- Expenditure on:
- Corporate office of contractor.
- Site supervision.
- Documentation and "as built" drawings.
- Mobilization / de-mobilization of resources.
- Labour camps with minimum amenities and transportation to work sites.
- Light vehicles for site supervision including administrative and managerial requirements.
- Laboratory equipment and quality control including field and laboratory testing.
- Minor T&P and survey instruments and setting outworks, including verification of line, dimensions, trial pits and bore holes, where require.
- Watch and ward.
- Traffic management during construction
- Expenditure on safe guarding environment.
- Sundries
- Financing Expenditure.
- Sales / Turn over tax.
- Work Insurance / compensation.
- AutoCAD Tower /Structure drawings of required sets.
- AutoCAD shop drawings of Towers /Structures of required sets.
- AutoCAD Substation layout.
- Testing and commissioning of the equipment.

6. (i) The area allowances, COP's and Mobilization charges are not applicable on Fabrication charges and Galvanization Charges.

(ii) The area allowance shall be applicable for O&M and RMI works also on par with construction works.

(iii) The mobilization charges shall be applicable for O&M & RMI works of lines also on par with construction works.

The area allowances are applicable for electrical works (labour), where the value of work is more than Rs.20.00 lakhs (electrical & civil). But this (APTRANSCO SSR) is not applicable for only Civil works.

7. (a) **TREE CUTTING AND CLEARING OF JUNGLE**

Please refer Common SSR of Board of Chief Engineers for the year 2013-14.

7 (b) **THE (LEAD) CONVEYANCE CHARGES FOR TRANSPORTATION OF EQUIPMENT / MATERIALS.**

Please refer Common SSR of Board of Chief Engineers for the year 2013-14.

8. **"Erection of Power Transformers and Oil filtration Works"**

The rates communicated by CE/Transmission vide letter No.CTO-121/F.PTRs erection works/D.No.104/08, Dt.05.07.2008 and subsequent Amendment No.I, dt. 15.07.2009 and Amendment No.II, dt. 21-04-11 on rate contract basis for erection, dismantling, transportation and oil filtration of power transformers through private agency are valid up to 03.07.2014.

Area Allowances, Special provisions and any other allowances are not applicable on the rates of rate contract.

The rates mentioned under the rate contract include all taxes & duties, allowances and all extra provisions including Transport etc. excluding service tax.

In the case of the works of Handling, Erection and Filtration of power Transformers will be carried out by the department, in such cases, area allowances, special provisions other than shutdown charges, taxes and duties are not applicable.

Note:

- (i) Shutdown charges are applicable only for the works carried out during shutdown period. The same has to be certified by the concerned Superintending Engineer.
- (ii) Whenever double boom crane is utilized for PTR works of 80 MVA & above capacity, 50% extra over the existing crane charges are applicable. However, the same has to be certified by concerned Superintending Engineer.

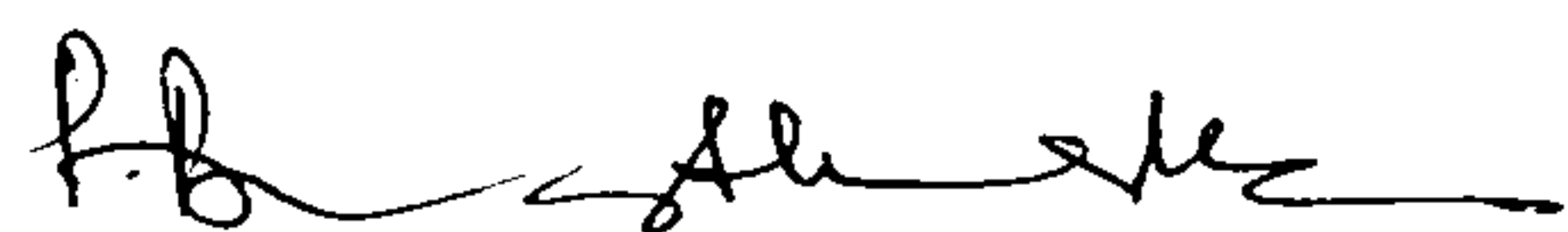
9. **Civil Engineering Works in Transmission lines & Substations :**

For Civil items works of Transmission Lines and Substations the common SSR 2013-14 for engineering departments shall be followed in Toto. Some provisions made in T.O.O.CE (Civil) Ms No.148, dated.21.10.2009 are also applicable for civil works. But the APTRANSCO SSR 2013-14 is not applicable for Civil Works.

10. In respect of Cement and Steel rods the procedure indicated in Common SSR for all Engineering Departments shall be adopted for updating of estimates at the time of finalization of tenders.
11. All statutory levies such as VAT (Works Contract Tax), Service Tax., Cess for labour welfare if any, are based on the prevailing notified rate, shall have to be added in the estimate
12. The S.S.R will come into force with immediate effect until further orders.

**Sd/- S. SUBRAHMANYAM
DIRECTOR (PROJECTS)**

// FORWARDED BY ORDER //



*DIVISIONAL ENGINEER – 3 /PM-II
O/o.Chief Engineer (Construction-2)
Vidyut Soudha, Hyderabad.*

ANNEXURE - I

ERECTION OF 220kV & 132 kV TRANSMISSION LINES

Sl. No.	Item No.	Description of Item	Unit	SS Rate for 2013-14 (Rs.)
CL1	1	Check Survey, peg marking the tower positions on ground, conforming to the approved Profile and tower schedules using GPS, Total stations, Digital theodolites etc.	kM	3555.00
CL2	2	Conducting reconnoitery and preliminary survey along bee line with three alternative routes and furnishing report for selecting the best proposal for approval, including cost & conveyance of all materials, hire charges of equipment, tools and plant, preparation of drawings and reports, labour charges, complete for finished item of work as per the directions of Engineer-in-charge at site. <u>Theodolite / With GPS equipment (As per Clause 4.9 of survey) /With total station equipment).</u>	RKM	3229.00
	3	Conducting detailed survey by taking the levels along the route to a corridor of 15 mtrs. width on either side of alignment, at every 20 mtrs. interval and wherever there is a steep increase/decrease in ground profile duly indicating the chainage between angle points, river crossings, railway crossing and major highway crossings and plotting the profiles and preparation of vicinity maps to the standard scales. The survey includes clearing of bushes, branches of tree, crops and shrubs wherever encountered for detailed survey for viewing, for fixing anchor towers and also taking levels etc. required for conducting detailed surveys.		
		<u>This work can be done with Theodolite or with GPS equipment (As per clause no.4.9 of survey) or with total station equipment. This work involves the following items.</u>		
CL3	i)	Tower schedules as per tower spotting requirements plotted on reproducible tracing of profile original with one extra copy shall be given . <u>Towers Schedules should be submitted with GPS Co-ordinates. Identification of wind zones, collection of Hydraulic data of rivers / drains from competent authority.</u>	RKM	11087.00
CL4	ii)	Taking earth resistivity at an interval of 1 Km by electrical resistivity method (4 point method) or by ERM method.	Loc	807.00

Sl. No.	Item No.	Description of Item	Unit	SS Rate for 2013-14 (Rs.)
	iii)	Preparing of PTCC questionnaire, topo sheets extracts with marking of the proposed line. Soil resistivity report, tower sketch, station single line diagram etc. (30 copies/sets)		
CL5	3 iii) a	up to 25KM	Job	4305.00
CL6	3 iii) b	Above 25KM	Job	7892.00
CL7	3 v)	Enumeration and numbering of trees, & marking on tree with white letters on yellow paint measuring girth and height of the trees and plotting in the profile. The trees enumerated shall be shown in profile on either side of centre line clearly, <u>up to required corridor for 132kV Line -27 Metres & 220kV Line -35 Meters</u> indicating name of tree, girth & height. Separate tree schedule should be submitted along with the profile for arriving tree compensation amount.	Each	16.30
CL8	3 (vi)	Preparation of ground profiles for Railway crossing, River crossing and EHV power line crossing separately wherever required.	Each crossing	2403.00
		The above rates shall include cost and conveyance of all materials hire charges of equipment tools & plant, preparation of profile drawing, painting of trees, labour charges, preparation of report etc., complete for finished item of work as per instructions of Engineer-in-charge.		
CL9	4	Excavation of trial pits of standard dimensions of 1 mtr X 1 mtr. width upto 3 mtrs. depth at 1 KM interval or wherever there is abnormal change in topography and taking observation of soil strata for classification of foundation and position of existing ground water table/depth of water in the existing open wells if any and back filling the trial pits after vetting by Departmental officials.	Each	1330.00
	5	<u>Setting of stubs with stub-setting template</u> : Erection of stubs, stub template, fixing of jacks for supporting template, alignment and levelling for exact location of stubs of stubsetting template, dismantling of template after completion of initial curing of C.C., movement of template from one location to other location (A minimum lead of 1 KM is adopted).		
CL10	(a)	132 KV P, R & S-Type Towers	Loc.	6346.00
CL11	(b)	220 KV A, B, C & D-Type Towers	Loc.	9247.00
CL12	(c)	132 KV Multi circuit Towers	Loc.	7932.00
CL13	(d)	220 KV Multi circuit Towers	Loc.	11558.00
CL14	(e)	132kV Narrow based Multi Circuit Towers.	Single pit	7294.00

Sl. No.	Item No.	Description of Item	Unit	SS Rate for 2013-14 (Rs.)
CL15	(f)	220kV Narrow based Multi Circuit Towers.	Single pit	10642.00
CL16	(g)	Pole/structure for termination of 220/132kV cables	Loc.	7139.00
CL17	(h)	220 /132 kV Narrow based tower	Loc.	10402.50
CL18	6(a)	Erection of tower structures, including all types of extensions except JC type towers (stub template erection and dismantling are not to be included) (including 3 mtr., 6 mtr. , 9 mtr., & 12 mtr. extensions)	MT	4201.00
CL19	6(b)	Erection of all types of narrow based towers / multi circuit tower structures / <u>narrow based multi circuit towers structures</u> , including all types of extensions except JC type towers (stub template erection and dismantling are not to be included) (including 3 mtr., 6 mtr. , 9 mtr., & 12 mtr. extensions)	MT	5885.00
CL20	6(c)	Erection of all types of 'JC' Type tower structures, including all types of extensions (stub template erection and dismantling are not to be included) (including 'O' based, Extended and Truncated)	MT	7565.00
CL22	6(d)	Erection of pole/structure for 220/132 kV cable termination	MT	5043.00
	7	STRINGING OF POWER CONDUCTOR: Hoisting of tension insulators and Suspension insulators, paving out the conductor, rough sagging, Jointing, tensioning, clipping and fixing of preformed Armour rods and vibration dampers. measuring ground clearances wherever necessary. <u>Which excludes the works involved in the crossing of LT, 11kV & 33kV power lines viz dismantling and restringing of conductor</u>		
CL23	(i)	3 Nos. Zebra conductors	RKM	35826.00
CL24	(ii)	6 Nos. Zebra conductors	RKM	53736.00
CL25	(iii)	2 Nos. Panther conductors	RKM	19103.00
CL26	(iv)	3 Nos. Panther conductors	RKM	28657.00
CL27	(v)	6 Nos. Panther conductors	RKM	45377.00
CL28	(vi)	2 Nos. Moose conductors	RKM	30251.00
CL29	(vii)	3 Nos. Moose conductors	RKM	45377.00
CL30	(viii)	6 Nos. Moose conductors	RKM	71645.00
CL31	(ix)	3 Nos. Bear conductors	RKM	35826.00
CL32	(x)	6 Nos. Bear conductors	RKM	53736.00
CL33	(xi)	3 Nos. Dog conductors	RKM	21492.00
CL34	(xii)	6 Nos. Dog conductors	RKM	34032.00
CL37	(xiii)	Twin Moose Conductor for Single circuit stringing (three phases) with TSE Machine .	RKM	Please refer 400kV SSR
CL38	(xiv)	Twin Moose Conductor for Double circuit stringing (three phases) with TSE Machine .	RKM	Please refer 400kV SSR

ANNEXURE - II
ERECTION OF 220kV, 132 kV & 33kV SUBSTATIONS

Sl. No.	Item No.	Description of Item	Unit	SS Rate for 2013-14 (Rs.)
CS1	1	Hoisting of Insulators and hardware, stretching the conductor and stringing of 220 kV bus comprising of three phases with Quadruple Moose conductor to a tension of 900kgs for single moose conductor.(<i>The maximum length or up to a length of bus section of 40m</i>)	Bus Section	19100.00
CS2	2	Hoisting of Insulators and hardware, stretching the conductor and stringing of 220 kV bus comprising of three phases with single Zebra/Moose conductor to a tension of 900kgs .(<i>The maximum length or up to a length of bus section of 40m</i>)	Bus Section	4776.00
CS3	3	Hoisting of Insulators and hardware, stretching the conductor and stringing of 220 kV bus comprising of three phases with Twin Zebra/Moose conductor to a tension of 1800kgs , including fixing of spacer clamps(<i>The maximum length or up to a length of bus section of 40m</i>).	Bus Section	9554.00
CS4	4	Hoisting of Insulators and hardware, stretching the conductor and stringing of 132 kV bus comprising of three phases with Single Zebra/Moose conductor to a tension of 900kgs .(<i>The maximum length or up to a length of bus section of 45m</i>).	Bus Section	4776.00
CS5	5	Hoisting of Insulators and hardware, stretching the conductor and stringing of 132 kV bus comprising of three phases with Twin Zebra/Moose conductor to a tension of 1800kgs including fixing of spacer clamps.(<i>The maximum length or up to a length of bus section of 45m</i>).	Bus Section	9554.00
CS6	6	Hoisting of Insulators and hardware, stretching the conductor and stringing of 33 kV bus comprising of three phases with Single Zebra/Moose conductor to a tension of 450kgs .(<i>The maximum length or up to a length of bus section of 20m</i>).	Bus Section	3583.00
CS7	7	Hoisting of Insulators and hardware, stretching the conductor and stringing of 33 kV bus comprising of three phases with Twin Zebra/Moose conductor to a tension of 900kgs including fixing of spacer clamps.(<i>The maximum length or up to a length of bus section of 20m</i>).	Bus Section	5973.00
CS8	8	Hoisting of Insulators and hardware, stretching the conductor and stringing of 132 kV bus comprising of two phases with Single Zebra/Moose conductor to a tension of 900kgs .(<i>The maximum length or up to a length of bus section of 45m</i>).	Bus Section	3183.00

Sl. No.	Item No.	Description of Item	Unit	SS Rate for 2013-14 (Rs.)
CS9	9	Fixing of spacers for Twin Moose conductor	Each	94.50
CS10	10	Fixing of spacers for Quadruple Moose Conductor	Each	130.50
CS11	11	Fixing of Hardware, stretching the ground wire and stringing of earth wire to a tension of 450kgs from pinnacle to pinnacle.	Each	713.80
CS12	12	Fixing of Hardware, stretching the ground wire and stringing of earth wire to a tension of 450kgs from pinnacle to ground.	RM	49.00
CS13	13	Connection of equipment to bus and or another equipment with <u>single zebra/Moose/Panther</u> conductor including measuring, cutting, clamping and hoisting of suspension insulator assembly to support the conductor wherever necessary.	Each	250.00
CS14	14	Connection of equipment to bus and or another equipment with <u>Twin zebra/Moose/Panther</u> conductor including measuring, cutting, clamping and hoisting of suspension insulator assembly to support the conductor wherever necessary.	Each	388.00
CS15	15	Connection of equipment to bus and or another equipment with <u>Quad zebra/Moose/Panther</u> conductor including measuring, cutting, clamping and hoisting of suspension insulator assembly to support the conductor wherever necessary.	Each	776.00
	16	Laying of earth mat including excavation of trenches, welding, connecting to equipment and connecting lightning shield to earth mat and earthing of fence posts, drilling and connecting earth rods including connecting cast iron pipes as per Drg. No.SET(P)/149/82 with the following sizes of MS Flats /GI Flats. (for 220kV & 132kV) including fabrication.		
CS16	16 a	100x16mm MS Flat / GI Flat.	RM	73.90
CS17	16 b	50x 8mm MS Flat / GI Flat.	RM	58.20
CS18	16 c	75x 8mm MS Flat / GI Flat.	RM	66.00
CS19	16 d	For laying of earth flat in hard rock in substation / bays extension, an additional amount to the basic labour rate of SSR will be allowed as there is no provision in the rate of laying of earth flat for removal of hard rocks.	RM	50.00
CS20	17	Excavation of earth pit, putting cast iron pipe with flange on one end (as per ISS7181/86) of nominal dia 125mm and 2.75 meters long in side the pit including supply and fixing RCC collars 0.75 meter dia (OD), 50mm thick and 0.60meters long in side the pit, backfill the pit in the 25mm size granules of BHcoke for full depth of the pit with alternate layers of BH coke and salt of 300mm thick around the earth pipe of 150mm on all the sides of the pipe including cost and conveyance of BH coke, salt, clamps, C.I.Pipes and RCC collars, labour charges for all operational	Each	10648.00
CS21	18	Laying of control cables of all sizes (from 2 core, 2.5 / 4.0sqmm to 12 core, 2.5/4.0sqmm, both copper and aluminium in cable trenches including cost of suitable metallic cable glands with rubber lining. Note: This includes running of cables in control room where cables are run on cable racks in cable duct.	RM	8.00

