TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

O/o
THE CHIEF ENGINEER
KADAPA ZONE/APTRANSCO
Sankarapuram/KADAPA-516002

Memo.No. CE/Z/ SE/Z/EE-Const/DEE4/F.Bethamcherla/D.No.725 /21Dt.24 .11.2021.

SE / Const Circle/KNL
AEE/T
R.No./Date. 1489 27/11/21
SE

Sub: - APTRANSCO – Kadapa Zone, Kadapa- Supply, Erection, Testing and Commissioning of: A) i) 220/132/33KV Substation at Bethamcherla and ii) 220 kV DC Line (68 KM) from 400KV SS Jammalamadugu to proposed 220KV SS Bethamcherla in Kurnool District;B)i)220KV DC Moose line from 400KV Jammalamadugu SS to 220KV Tadipitri SS and ii)220KV Bay Extensions at 220KV Tadipatri SS in Ananthapur district;C)i)132KV LILO of both circuits of 132KV DC line from 132KV Suzlon Wind Pooling.Station-existing132KVJammalamadugu SS to the propose400/220/132KV JammalamaduguSS2X6KM), ii) 132KV LILO of both the circuits of existing 132KV DC/SC Badvel- Porumamilla line to the Proposed 220KV SS Porumamilla on Normal Towers (1x2Km), iii) Stringing of 2ndcircuit on 132KV DC/SC Badvel-Porumamilla Line (36.7km),iv)132KVBay-Extensions at 220KV Porumamilla SS(required for LILO of Badvel-Porumamilla),v)132KV Bay extensions at 132/33KVPorumamilla SS and vi) 132KVBay Extensions at 132/33KV Badvel SS in Kadapa district on turnkey basis - DGPS survey Supplemental item deviation (7) for an Amount of Rs 3,39,900/- Approval- Accorded -Regarding.

Ref: - 1. T.O.O. (CE-Construction) Ms.No.171 Dated: 02-07-2016

2. Contract order P.O.No.433/CPT140/APT-e-21/Bethamcherla/RC No.4424/ D.No.2153/18 Dt: 05.01.2018.
3. Memo No.CE/KDPZ/KDP/EE-T/DEE-T1/AEE-T1/F.427-B/D.No.2662/19 Dt: 8.10.19
4. Memo No.CE/KDPZ/KDP/EE-T/DEE-T1/AEE-T1/F.2033/D.No.1610/20 Dt 11.09.20.
5. Lr No.CPT 140/SE-PM/EE-1/F.Bethamcherla/D.No.2347/20 Dt: 01.10.2020.
6. Lr.No.SE/Const/KNL/AEE-T/F.Forest. Vol-II/D.NO 719/21 dt 29.07.2021

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Vide ref (2) cited above the works of "Supply, Erection, Testing and Commissioning of 220/132/33KV Substation at Bethamcherla, and all other connected subject works on turnkey basis contract as per contract order, awarded to M/s Mega Engineering and infrastructures Ltd /Hyderabad.

Vide reference (7) the Superintending Engineer/construction circle /Kurnool has submitted supplemental item deviation proposal for conducting DGPS survey for 220KV DC line from 400/220Kv SS Jammalamadugu to proposed 220/132/33Kv Bethamcherla SS from LOC 222 to229 (RESERVE FOREST REGION).This proposed supplemental item (deviation7) indicating the deviation of items in Schedule B1-4B installation Services. As seen from the statement enclosed due to this the face value of PO is revised from initial PO Value Rs.1,02,90,14,005.26/- to Rs.1,12,54,14,820.41 and %overall deviation is 9.37% including proposed supplemental item.

The proposed Supplemental deviation towards conducting of DGPS survey from LOC 222 to 229(RESERVE FOREST REGION) item for an amount of Rs.3,39,900/ is hereby approved subject to the correctness of the quantities as measured and certified by the field officers and any discrepancies will be observed in the approved supplemental item deviation-7 statement in future the excess amount paid to the agency will be recovered in subsequent bills/ any other amounts available with APTRANSCO without any notice. The other terms and conditions are remains unaltered.

This approval is herewith accorded with the concurrence of CHAIRMAN & MANAGING DIRECTOR/APTRANSCO, vide E-office file No.1545341ENE51- PMO CIV/ (220)/28 -2021 EETR , vide noting No # 16.

Encl: Abstract Statement 1 No.

CHIEF ENGINEER/ZONE
APTRANSCO/KADAPA

To

The Superintending Engineer/Construction/APTRANSCO/Kurnool

Copy to the Superintending Engineer/Civil/APTRANSCO/Kadapa

Copy to the Superintending Engineer/construction /APTRANSCO/Kadapa

Copy to the Superintending Engineer/O&M /APTRANSCO/Ananthapuramu.

ABSTRACT OF PROPOSED INTERMEDIATE DEVIATION (7) FOR PROJECT BETHAMCHERLA SS

S.No	Description	As per PO in Rs.	As per approved intermediate deviation-1	As per approved intermediate deviation-2	As per the approved intermediate deviation-3	As per approved intermediate deviation-4	As per approved intermediate deviation-5	As per approved intermediate deviation-6	As per proposed deviation-7 (DGPS supplimental item)	Proposed deviation amount Excess/less	% Proposed Deviation	Over all deviation (%)
1	Schedule No -A-1 (220KVSS, Bethamcherla)											
i)	Schedule-A-2 supplied from Employer. (Material)	89750616.30	89750616.30	89750616.30	89750616.30	89750616.30	89750616.30	89750616.30	89750616.30	0.00	0.00%	0.00%
ii)	ScheduleA-4A (Civil works	59420289.85	58154302.59	53704253.81	53704253.81	53704253.81	53704253.81	54399499.04	54399499.04	0.00	0.00%	-8.45%
iii)	Schedule-4B (Supply & installation)	14277630.67	14277630.67	14277630.67	14277630.67	14277630.67	14277630.67	14824253.91	14824253.91	0.00	0.00%	3.83%
	Total (Schedule-6A)	163448536.82	162182549.56	157732500.78	157732500.78	157732500.78	157732500.78	158974369.25	158974369.25	0.00	0.00%	-2.74%
2	Schedule-B-1 (220KV DC line from 400KVSS,											
i)	Schedule-B-2supplied from Employer. (Material)	279136838.16	279136838.16	279136838.16	349008509.39	349008509.40	349008509.40	350085018.18	350085018.18	0.00	0.00%	25.42%
ii)	Schedule-B-4A (Civil)	67417149.15	67417149.15	67417149.15	67417149.15	89204745.79	89204745.79	89204745.79	89204745.79	0.00	0.00%	32.32%
iii)	Schedule-B-4B (Installation services)	31865844.53	31865844.53	31865844.53	38330104.36	38330104.36	38330104.36	38678549.32	39018449.32	339900.00	1.07%	22.45%
	Total (Schedule-6B)	378419831.84	378419831.84	378419831.84	454755762.90	476543359.55	476543359.55	477968313.29	478308213.29	339900.00	0.09%	26.40%
3	Schedule-C-1(220KV DC line from 400KV SS,											
i)	Schedule-C-2supplied from Employer. (Material)	216411656.00	216411656.00	216411656.00	216411656.00	216411656.00	216411656.00	216411656.00	216411656.00	0.00	0.00%	0.00%
ii)	Schedule-C-4A (Civil)	43830943.28	43830943.28	43830943.28	43830943.28	43830943.28	43830943.28	43830943.28	43830943.28	0.00	0.00%	0.00%
iii)	Schedule-C-4B (Installation services	23384629.32	23384629.32	23384629.32	23384629.32	23384629.32	23384629.32	23384629.32	23384629.32	0.00	0.00%	0.00%
	Total (Schedule-6-C).	283627228.60	283627228.60	283627228.60	283627228.60	283627228.60	283627228.60	283627228.60	283627228.60	0.00	0.00%	0.00%
4	Schedule No D-1 (2 No's 220KV Bay											
i)	Schedule D-2 (material)	23338467.20	23338467.20	23338467.20	23338467.20	23338467.20	23338467.20	23338467.20	23338467.20	0.00	0.00%	0.00%
ii)	Schedule D-4A (Civil works)	2708821.10	2708821.10	2708821.10	2708821.10	2708821.10	2708821.10	2708821.10	2708821.10	0.00	0.00%	0.00%
iii)	Schedule-D-4B (Installation services)	2944239.27	2944239.27	2944239.27	2944239.27	2944239.27	2944239.27	2944239.27	2944239.27	0.00	0.00%	0.00%
	Total (Schedule-6D)	28991527.57	28991527.57	28991527.57	28991527.57	28991527.57	28991527.57	28991527.57	28991527.57	0.00	0.00%	0.00%
5	Schedule No E-1 (Erection of 132KV LILO line											
i)	Schedule-E2 (material)	58003632.80	58003632.80	58003632.80	58003632.80	58003632.80	58003632.80	58003632.80	58003632.80	0.00	0.00%	0.00%
ii)	Schedule-E-4-A(Line Civil works)	13131576.57	13131576.57	13131576.57	13131576.57	13131576.57	14103231.53	14103231.53	14103231.53	0.00	0.00%	7.40%
iii)	Schedule-E-4B (Installation services(electrical)	9651455.02	9651455.02	9651455.02	9651455.02	9651455.02	9666401.33	9666401.33	9666401.33	0.00	0.00%	0.15%
	Schedule-Insta(Telecom)	189966.37	189966.37	189966.37	189966.37	189966.37	189966.37	189966.37	189966.37	0.00	0.00%	0.00%
	Total (Schedule-6E)	80976630.76	80976630.76	80976630.76	80976630.76	80976630.76	81963232.03	81963232.03	81963232.03	0.00	0.00%	1.22%
6	Schedule-F-1(LILO of existing 132 KV DC/SC											
i)	Schedule-F-2 (Material)	14008472.00	14008472.00	14008472.00	14008472.00	14008472.00	14008472.00	14008472.00	14008472.00	0.00	0.00%	0.00%
ii)	Schedule-F-4A(Civil works)	2632209.22	2632209.22	2632209.22	2632209.22	2632209.22	2632209.22	2632209.22	2632209.22	0.00	0.00%	0.00%
iii)	Schedule-F-4B (Installation services)	6442047.55	6442047.55	6442047.55	6442047.55	6442047.55	6442047.55	6442047.55	6442047.55	0.00	0.00%	0.00%

	Total Schedule-6F	23082728.77	23082728.77	23082728.77	23082728.77	23082728.77	23082728.77	23082728.77	23082728.77	0.00	0.00%	0.00%
7	Schedule G-1 (Second circuit stringing on existing 132KV DC/DC											
i)	Schedule-G2(Material)	23404256.00	23404256.00	23404256.00	23404256.00	23404256.00	23404256.00	23404256.00	23404256.00	0.00	0.00%	0.00%
ii)	Schedule-G-4B(Installation services)	2589819.85	2589819.85	2589819.85	2589819.85	2589819.85	2589819.85	2589819.85	2589819.85	0.00	0.00%	0.00%
	Total Schedule-6G	25994075.85	25994075.85	25994075.85	25994075.85	25994075.85	25994075.85	25994075.85	25994075.85	0.00	0.00%	0.00%
8	Schedule-H-2 (2 No's Bay Extensions along											
i)	Schedule-H2 (Material)	18545593.80	18545593.80	18545593.80	18545593.80	18545593.80	18545593.80	18545593.80	18545593.80	0.00	0.00%	0.00%
ii)	Schedule-H-4A (Civil Works)	3472511.55	3472511.55	3472511.55	3472511.55	3472511.55	3472511.55	3472511.55	3472511.55	0.00	0.00%	0.00%
iii)	Schedule-H-4B (Installation Services)	1616184.55	1616184.55	1616184.55	1616184.55	1616184.55	1616184.55	1616184.55	1616184.55	0.00	0.00%	0.00%
	Total Schedule-6H	23634289.90	23634289.90	23634289.90	23634289.90	23634289.90	23634289.90	23634289.90	23634289.90	0.00	0.00%	0.00%
9	Schedule-I-1 (Erection of 1 No.132KV Bay at											
i)	Schedule-I2 (Material)	6975732.90	6975732.90	6975732.90	6975732.90	6975732.90	6975732.90	6975732.90	6975732.90	0.00	0.00%	0.00%
ii)	Schedule-I-4A (Civil works)	682063.43	682063.43	682063.43	682063.43	682063.43	682063.43	682063.43	682063.43	0.00	0.00%	0.00%
iii)	Schedule-I-4B (Installation Services)	925873.68	925873.68	925873.68	925873.68	925873.68	925873.68	925873.68	925873.68	0.00	0.00%	0.00%
	Total Schedule-6I	8583670.01	8583670.01	8583670.01	8583670.01	8583670.01	8583670.01	8583670.01	8583670.01	0.00	0.00%	0.00%
10	Schedule-J-1 (Erection of.132KV Bay											
i)	Schedule-J-2 (Material)	7296817.30	7296817.30	7296817.30	7296817.30	7296817.30	7296817.30	7296817.30	7296817.30	0.00	0.00%	0.00%
ii)	Schedule-J-4A (civil works)	3776531.07	3776531.07	3776531.07	3776531.07	3776531.07	3776531.07	3776531.07	3776531.07	0.00	0.00%	0.00%
iii)	Schedule-J-4B (installation services)	1182136.77	1182136.77	1182136.77	1182136.77	1182136.77	1182136.77	1182136.77	1182136.77	0.00	0.00%	0.00%
	Total Schedule-6-J	12255485.14	12255485.14	12255485.14	12255485.14	12255485.14	12255485.14	12255485.14	12255485.14	0.00	0.00%	0.00%
	Grand Total	1029014005.26	1027748018.00	1023297969.22	1099633900.28	1121421496.93	1122408098.20	1125074920.41	1125414820.41	339900.00		9.37%
	% overall deviation for Each Deviation		**-0.12%**	**-0.56%**	**6.86%**	**8.98%**	**9.08%**	**9.34%**	**9.37%**		**0.033%**	

Total Amount as per PO in Rs. 1,02,90,14,005.26

Total amount as per actual exceution includingProposed deviation in Rs 11,25,24,14,820.41

Excess Amount in Rs. 10,22,34,00,815.15

%Over all Deviation (Excess) 9.37%

% Deviation with proposed Item is **0.033%**

CHIEF ENGINEER/KADAPA ZONE
APTRANSCO::KADAPA

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

Transmission Scheme for Evacuation of 3150 MW Wind Power in Kadapa, Anantapur and Kurnool districts of Andhra Pradesh – Revised Administrative Approval – Accorded.

T.O.O.(CE- 400kV Construction) Ms.No : 986 Dt: 06.11.2018

Ref : 1) T.O.O.(CE-Construction/400kV) Ms.No. 248 Date: 15.11.2012.
2) T.O.O.(CE-Construction/400kV) Ms.No. 402, Date: 25.03.2013.
3) T.O.O.(CE- 400kV Construction) Ms.No. 10, Date: 11.03.2015.
4) T.O.O.(CE- 400kV Construction) Ms.No. 29, Date: 21.10.2015.
5) T.O.O.(CE- 400kV Construction) Ms.No. 295, Date: 05.11.2016
6) T.O.O (.(CE- 400kV Construction) Ms.No.735, Date: 09.04.2018
7) T.O.O (.(CE- 400kV Construction) Ms.No.876, Date: 10.08.2018

PROCEEDINGS:

1. In the T.O.O. cited (7), Revised Administrative approval was accorded for the transmission scheme for "Evacuation of Wind Power in Kadapa, Anantapur and Kurnool districts of Andhra Pradesh" at an estimated cost of Rs.**3323.60** Crore and **Rs.355.35** Crore towards Interest During Construction (IDC). The total cost of the scheme including IDC is **Rs.3678.95** Crore, duly considering the modifications in 220kV and 132kV scope, as proposed by Chief Engineer, Construction, APTRANSCO.
2. APERC vide letters dated: 28.10.2013, 22.09.2014 and 10.11.2015, accorded Investment approval for Phase –I and Phase –II works of the scheme.
3. The priority works are tied up with REC and the balance works of the scheme are tied up with KfW, as KfW will arrange the funding for unawarded works only, at the time of sanction of loan agreement.
4. In the existing T.O.O, the proposed 125 MVAR Bus Reactor as recommended by CTU during 42nd standing committee meeting conducted by CEA on 07.04.2018, was considered in place of 80 MVAR Bus Reactor.
5. However, as per the discussions held on requirement of Bus Reactors at 400kV Substations during recent review meetings and as per the reactive compensation studies by Chief Engineer/Power Systems, APTRANSCO, it was clarified that 1 No 125 MVAR Bus Reactor was additionally required at 400/220kV Hindupur Sub-Station which was under construction stage.
6. Considering the above after careful consideration, APTRANSCO accords revised administrative approval to the Transmission scheme for evacuation of 3150 MW Wind Power in Kadapa, Anantapur and Kurnool districts of Andhrapradesh" with estimated cost of **Rs. 3690.68 Crores (including IDC)** against existing Scheme cost **of Rs.3678.95 Crores** duly adding 1 no additional 125 MVAR Bus Reactor to the scope of 400kV Hindupur Sub-station works.
7. The Chief Engineer/400kV Construction, Vidyut Soudha, Vijayawada is here by authorized to take up the above additional 125 MVAR Bus Reactor work at 400/220kV Hindupur Substation, by obtaining necessary budget provision and funds tie up from finance wing of APTRANSCO.

Contnd..2

8. In exercise of the powers conferred vide G.O.Ms.No.115, dated 07-10-2003 of Government of Andhra Pradesh, APTRANSCO or their authorized representatives shall have the powers for placing of the electric supply lines or electric plant for the transmission of electricity or for the purpose of telephonic or telegraphic communications necessary for the proper co-ordination of works that a telegraphic authority possesses under the provision of the Indian Telegraph Act, 1885 (Central Act-13 of 1885).

9. This order is issued with the concurrence of the Chairman and Managing Director/APTRANSCo vide FLM Note 4005350 (Noting No.32)dt: 31.10.2018

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

Encl: Annexure.

S/d----
DIRECTOR/ (Grid & Transmission Management)
APTRANSCO

// Forwarded by Order//

S. [illegible]

Deputy Executive Engineer/S
400 KV Construction /V.S
Vijayawada

To
The Chief Engineer/ 400kV Construction/ Vidyut Soudha, Vijayawada
The Chief Engineer/ Construction/ Vidyut Soudha, Vijayawada
Copy to the :

1. The Chief Engineer/ Construction/APTRANSCO/ Vidyut Soudha,Vijayawada,
2. The Chief Engineer/ Transmission/APTRANSCO/ Vidyut Soudha/Vijayawada,
3. The Chief Engineer/ Telecom & IT /APTRANSCO/ Vidyut Soudha/Vijayawada,
4. The Executive Director/HRD & Planning/APTRANSCO/VS/Vijayawada.
5. The Chief Engineer/IPC & Power Systems/APTRANSCO/Vidyut Soudha/Vijayawada,
6. The Chief Engineer/SLDC /APTRANSCO/ Vidyut Soudha /Vijayawada,
7. The Chief Engineer/Lift Irrigation, EA & Operation/APTRANSCO/ VS /Vijayawada.
8. The Chief Engineer/Civil/APTRANSCO/Vidyut Soudha/Vijayawada.
9. The Chief Engineer/Commercial/APTRANSCO/ Vidyut Soudha /Vijayawada,
10. The FA & CCA (Accounts)/ APTRANSCO/ Vidyut Soudha/Vijayawada,
11. The Executive Director (Finance)/ APTRANSCO/ Vidyut Soudha/Vijayawada,
12. The P.S. to the Chairman & Managing Director/APTRANSCO/Vidyut Soudha/ Vijayawada.
13. The P.S. to the Joint Managing Director (Vigilance & Security)/APTRANSCO/ VS/Vijayawda.
14. The P.S. to the Director (Grid & Transmission Management)/ APTRANSCO/ VS/Vijayawada.
15. The P.S. to the Director (Technical)/ APTRANSCO/ Vidyut Soudha/Vijayawada,
16. The Chief Engineer/Zone/APTRANSCO/Vijayawada.
17. The Chief Engineer/Zone/APTRANSCO/Visakhapatnam.
18. The Chief Engineer/Zone/APTRANSCO/Kadapa.
19. The Superintending Engineer//PM/400kV/APTRANSCO/ Vidyut Soudha/Vijayawada.
20. The Superintending Engineer/400kV/OMC/APTRANSCO/Vijayawada,
21. The Superintending Engineer/400kV/OMC/APTRANSCO/Kadapa.
22. The Superintending Engineer/400kV Construction/APTRANSCO/Visakhapatnam..
23. Central Record Section – 2 copies.

Contd...3

Annexure to: T.O.O.(CE-400kV Construction) Ms. No. 986 ,Dt:06.11.2018

Abstract Estimate :: Evacuation of Wind Power in Kadapa, Anantapur and Kurnool districts of Andhra Pradesh

Sl. No	Description of Line/ Substation	Exisitng system	Proposed system	Unit	Estimated Cost as per Revised T.O.O. 10.08.2018	Revised Estimated Cost now proposed (Amount in Lakh Rs.)
		Length/ Capacity/ No. of Bays				
A: 400kV Hindupur Substation:						
1	400/220kV Substation at Hindupur- 3x315 MVA PTRs	3 x 315	3 x 315	MVA	16,173.94	16,173.70
2	400kV Bay Extensions at 400kV Uravakonda SS required for termination of 400kV QMDC Line from Hidupur SS - Uravakonda SS	2	2	Nos.		
3	80 MVAR Bus Reactor	1 x 80 MVAR	1 x 80 MVAR	No.		
4	**125MVAR Bus Reactor-Newly added**	**...**	**1x 125 MVAR**	**No.**	.....	**965.24**
5	Augmentation of 4th 315 MVA PTR at Hindupur 400kV SS	1x315	1x315	MVA	1,877.00	1,877.00
6	400kV DC Quad Moose Line from Hindupur SS to 400kV Uravakonda SS	130	130	km	31,200.00	31,200.00
7	220kV DC Moose Line from 400kV Hindupur SS to 220kV Penukonda SS	50	50	km	4,350.50	4,350.50
8	220/132 kV Substations at Penukonda (2x100 replaced by 2x160)	2x160	2x160	MVA	3,224.24	3,224.24
9	220kV DC Twin Moose line from 400kV Hindupur SS to 220kV Pampanur Tanda SS (Thimma Samudram)	75	75	km	7,830.90	7,830.90
10	220/132 kV Substation at Pampanur Tanda (Thimma Samudram) (2x100 replaced by 2x160)	2x160	2x160	MVA	3,224.24	3,224.24
11	220kV Bay Extensions at 400kV Hindupur Substation(2nos)	2	2	Nos.	323.58	323.58
12	220kV DC/SC line of Twin Moose from 400/220kV SS Hindupur to existing 220kV SS Hindupur	24	24	km	2,928.00	2,928.00
13	220kV Twin Moose DC Line from 400/220kV SS Hindupur to 220kV SS Gollapuram	28	28	km	3,416.00	3,416.00

Contnd...4

14	220kV Bay extensions at 400kV Hindupur Substation –for termination of 220kV Gollapuram and 220kV DC/SC Hindupur line	3	3	Nos.	579	579
15	220kV Single Moose DC line from 400/220kV Hindupur SS to 220/132kV Pampanurthanda SS-Newly proposed	...	74	km	8193.99	8193.99
	Sub-Total(A):				**83,321.39**	**84,286.39**
B:400kV Jammalamadugu Substation:						
1	400/220/132kV Substation at Jammalamadugu (4x315+2x160 replaced by 3x315+2x160)	2x315 & 2X160	2x315 & 2X160	MVA	14,588.52	14,588.52
	Augmentation of 3rd 315 MVA PTR at Jammalamadugu 400kV SS	1x315	1x315	MVA		
2	400kV Quad Bay Extensions at Kurnool 400kV Substation	2	2	Nos.	1,518.80	1,518.80
3	80 MVAR Bus Rector	1	1	No.	965	965
4	400kV DC Quad Moose Line from 400kV Jammalamadugu to 400kV Kurnool SS	125	125	km	30,000.00	30,000.00
5	400kV DC Quad Moose Line from 400kV Jammalamadugu to 400kV Uravakonda SS	110	110	km	26,400.00	26,400.00
6	220kV DC Moose line from 400kV Jammalamadugu SS to 220kV Tirumalaipally SS	17	17	km	1,187.28	1,187.28
7	220/132 kV Substation at Tirumalaipally	2x160	2x160	MVA	2,385.65	2,385.65
8	220kV DC Moose line from 400kV Jammalamadugu SS to 220kV Betamcherla	68	68	km	5,916.68	5,916.68
9	220/132/33 kV Substation at Betamcherla (2x100+2x31.5 is replaced by 2x160+2x31.5)	2x160& 2x31.5	2x160& 2x31.5	MVA	3,915.34	3,915.34
10	220kV DC Moose line from 400kV Jammalamadugu SS to 220kV Chakrayapet SS	70	70	km	4,888.80	4,888.80
11	220/132/33 kV Substation at Chakrayapet (2x100+2x31.5 is replaced by 2x160+2x31.5)	2x160 & 2x31.5	2x160 & 2x31.5	MVA	2,768.78	2,768.78
12	220kV DC Moose line from 400kV Jammalamadugu SS to 220kV Porumamilla SS	75	75	km	5,238.00	5,238.00
13	220/132 kV Substation at Porumamilla (2x100 is replaced by 2x160)	2x160	2x160	MVA	2,080.27	2,080.27
	Sub-Total (B):				**1,01,853.12**	**1,01,853.12**
C:400kV Uravakonda Substation:						
1	400/220kV Substation at Uravakonda	2x315	2x315	MVA	10,471.91	10,471.91
	Augmentation of 2 Nos. 500 MVA PTRs at 400kV Uravakonda SS (2x315 is replaced by 2x500)	2x500	2x500	MVA	4,658.00	4,658.00

Contnd....5

2	400kV Quad Bay Extensions at Mahaboobnagar 400kV Substation	2	2	Nos.	1,943.35	1,943.35
3	80 MVAR Bus Rector	1	1	No.	965	965
4	400kV DC Quad Moose line from 400kV Uravakonda SS to 400kV Mahaboobnagar SS	190	190	km	45600	45600
5	220kV DC Twin Moose line from 400kV Uravakonda SS to 220kV Vajrakarur SS	13	13	km	1545.7	1545.7
6	220/132 kV Substation at Vajrakarur (1x100 is replaced by 2x160)	2x160	2x160	MVA	2,158.01	2,158.01
7	220kV DC Twin Moose line from 400kV Uravakonda SS to 220kV Borampalli SS	68	68	km	8,085.20	8,085.20
8	220/132 kV Substation at Borrampalli (1x100 is replaced by 2x160)	2x160	2x160	MVA	2,158.01	2,158.01
9	220kV DC Twin Moose line from 400kV Uravakonda SS to 220kV Pampanur Tanda SS	90	90	km	-	-
10	220/132 kV Substation at Pampanur Tanda	2x100	2x100	MVA	-	-
11	220kV Bay Extensions at 400kV Uravakonda Substation	2	2	Nos.	-	-
	Sub-Total (C):				**77,585.18**	**77,585.18**
D:220kV Interconnectivities:						
1	**220kV DC Moose line from 400kV Hindupur SS to 220kV Hindupur Substation**	**20**	**deleted**	km	0.00	**0.00**
2	220kV DC Moose line from 400kV Uravakonda SS to 220kV KalyanDurg SS	50	50	km	3,492.00	3,492.00
3	LILO of both the circuits of 220kV DC Moose line from 400kV Uravakonda SS to 220kV KalyanDurg SS at 220kV Borampalli SS	10	10	km	1,396.80	1,396.80
4	**220kV DC Moose line from 400kV Jammalamadugu SS to 220kV Tadipatri SS**	**40**	**deleted**	km	0.00	**0.00**
5	220kV Bay Extensions at 220kV Hindupur Substation	2	2	Nos.	323.58	323.58
6	220kV Bay Extensions at 220kV Kalyandurg Substation	2	2	Nos.	221.9	221.9
7	220kV Bay Extensions at 220kV Tadipatri Substation	2	2	Nos.	323.58	323.58
	NEWLY PROPOSED CONNECTIVITIES					
8	**220kV Twin Moose DC line from 220/132kV Vajrakarur SS to 220/132kV Anantapur SS**	..	60	km	6643.77	6643.77
9	**220kV Single Moose DC line from 220kV Borampalli SS to 220kV Kalyandurg SS**	..	15	km	1660.94	1660.94
10	**220kV Bay Extensions at 220kV Vajrakarur Substation**	..	2	Nos.	343.57	343.57

Contnd....6

11	**220kV Bay Extensions at 220kV Anantapur Substation**	..	2	Nos.	343.57	343.57
12	**220kV Bay Extensions at 220kV Borampalli Substation**	..	2	Nos.	343.57	343.57
13	**220kV Bay Extensions at 220kV kalyandurg Substation**	..	2	Nos.	343.57	343.57
14	**220kV Bay Extensions at 220kVGollapuram Substation**	..	2	Nos.	343.57	343.57
15	**220kV Bay Extensions at 220kV Hindupur Substation**	..	1	Nos.	171.78	171.78
16	**220kV Bay Extensions at 220kV Pampanur thanda Substation**	..	2	Nos.	343.57	343.57
	Sub-Total(D):			-	**16,295.77**	**16,295.77**
E:132 kV Interconnectivities:						
1	132 kV DC line from 220/132 kV Penukonda SS to 132/33 kV Penukonda SS	10	10	km	755.1	755.1
2	132kV LILO of both circuits of 132kV DC line from 132kV Suzlon Wind Pooling Station - existing 132kV Jammalamadugu SS to the proposed 400/220/132kV Jammalamadugu SS (2x6 km)	12	12	km	906.12	906.12
3	132 kV LILO of both the circuits of existing 132kV DC/SC Badvel – Porumamilla line to the proposed 220kV SS Porumamilla on Normal Towers (1x2km)	2	2	km	151.02	151.02
4	Stringing of 2nd circuit on 132kV DC/SC Badvel – Porumamilla line	36.7	36.7	km	375.07	375.07
5	132kV Bay Extensions at 220kV Porumamilla SS (required for LILO of Badvel - Porumamilla)	2	2	Nos.	191.08	191.08
6	132 kV Bay Extensions at 132/33 kV Penukonda Substation	2	2	Nos.	191.08	191.08
7	**132 kV Bay Extensions at 400/220/132 kV Jammalamadugu Substation** (required for LILO of 132kV Suzlon - Jammalamadugu)	**2**	**4**	**Nos.**	**388.04**	**388.04**
8	132 kV Bay Extensions at 132/33 kV Porumamilla Substation	1	1	No.	95.54	95.54
9	132 kV Bay Extensions at 132/33 kV Badvel Substation	1	1	No.	95.54	95.54
	Sub-Total(E):				**3,148.59**	**3,148.59**
	Total:				**2,82,204.05**	**2,83,169.05**
F : Communication Equipment:						
(i)	400kV Works	LS		LS	6269.74	6269.74
(ii)	220kV Works	LS		LS		
(iii)	132kV Works	LS		LS		
	Total (A+B+C+D+E+F) :				2,88,473.79	2,89,438.79
G	Special T & P @ 1% :				2,884.74	2,894.39
	Total (A+B+C+D+E+F+G) :				2,91,358.53	2,92,333.18

contd...7

H	Contingencies (3%) :				8,740.76	8,770.00
	Total including contingencies :				3,00,099.29	3,01,103.18
I	Estt. and other charges @ 10.75% :				32,260.67	32,368.59
	Grand Total :				3,32,359.96	3,33,471.77
	or Say (Rs. in Crores) ::				**3,323.60**	**3,334.72**
	Interest During Construction (Rs. in Crores) :				355.35	355.96
	Total (including IDC) - (Rs. in Crores) :				**3,678.95**	**3,690.68**

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

From
The Chief Engineer,
Construction,
APTRANSCO, Vidyut Soudha,
Vijayawada .

To
M/s. Megha Engineering & Infrastructures Ltd.,
S-2, Technocrats Industrial Estate,
Balanagar, Hyderabad – 500 037
Telangana, India.
Tel: 040-44336700, Fax: 040-44336800

Contract order P.O.No. 433 /CPT140 / SE-PM/APT-e-21/Bethamcherla /R.C.No. 4424; D. No. 2153 /18,Dt : 05 -01-2018.

Sir,

Sub : APTRANSCO - Bid No. APT-21/2016 - Supply, Erection, Testing and Commissioning of A) i) 220/132/33KV Substation at Bethamcherla and ii) 220 kV DC Line (68 KM) from 400KV SS Jammalamadugu to proposed 220KV SS Bethamcherla in Kurnool District; B) i) 220KV DC Moose line from 400KV Jammalamadugu SS to 220KV Tadipitri SS and ii)220KV Bay Extensions at 220KV Tadipatri SS in Ananthapur district; C) i) 132KV LILO of both circuits of 132KV DC line from 132KV Suzlon Wind Pooling Station-existing 132KV Jammalamadugu SS to the proposed 400/220/132KV Jammalamadugu SS(2X6KM), ii) 132KV LILO of both the circuits of existing 132KV DC/SC Badvel-Porumamilla line to the proposed 220KV SS Porumamilla on Normal Towers(1x2Km), iii) Stringing of 2nd circuit on 132KV DC/SC Badvel-Porumamilla line(36.7 km), iv) 132KV Bay Extensions at 220KV Porumamilla SS (required for LILO of Badvel-Porumamilla), v) 132KV Bay extensions at 132/33KV Porumamilla SS and vi) 132KV Bay Extensions at 132/33KV Badvel SS in Kadapa district on turnkey basis in the state of AP under International Competitive Bidding (ICB) -Detailed Contract Order - Issued – Regarding

Ref :
1. Bid No. APT-21/2016.
2. Your offer against Bid No. APT-21/2016.
3. NOA No. Lr. No. CPT 140/SE PM/ICB 6/F. Bethamcherla/D.No. 1241/17, dt: 05/06/2017.
4. Company acceptance letter MEIL/PD/BD/APT/APT-21/2016/LOI Acceptance, dt: 14/06/2017.
5. Lr.No.CPT140/SE PM/ICB6/F.Bethamcherla/D.No.1970/17;dt:24.11.2017

-oOo-

I, acting for and on behalf of and by the order and direction of the TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED (herein after called 'APTRANSCO') accept the prices offered in your offer vide cited ref (2) against APTRANSCO's International Competitive Bidding documents for Bid No. APT-21/2016 for Supply, Erection, Testing and Commissioning of A) i) 220/132/33KV Substation at Bethamcherla and ii) 220 kV DC Line (68 KM) from 400KV SS Jammalamadugu to proposed 220KV SS Bethamcherla in Kurnool District; B) i) 220KV DC Moose line from 400KV Jammalamadugu SS to 220KV Tadipitri SS and ii)220KV Bay Extensions at 220KV Tadipatri SS in Ananthapur district; C) i) 132KV LILO of both circuits of 132KV DC line from 132KV Suzlon Wind Pooling Station-existing 132KV Jammalamadugu SS to the proposed 400/220/132KV Jammalamadugu SS(2X6KM), ii) 132KV LILO of both the circuits of existing 132KV DC/SC Badvel-Porumamilla line to the proposed

220KV SS Porumamilla on Normal Towers(1x2Km), iii) Stringing of 2nd circuit on 132KV DC/SC Badvel-Porumamilla line(36.7 km), iv) 132KV Bay Extensions at 220KV Porumamilla SS (required for LILO of Badvel-Porumamilla), v) 132KV Bay extensions at 132/33KV Porumamilla SS and vi) 132KV Bay Extensions at 132/33KV Badvel SS in Kadapa district on turnkey basis in the state of AP against bid specification under reference (1) cited, is hereby accepted for a total amount **Rs.102,45,71,424/-(Rupees one hundred and Two crores Forty Five Lakhs Seventy One Thousand Four Hundred and twenty Four only)** in pre GST regime vide ref 3rd cited.After updating the above contract value with GST tax structure the contract for a total value of Rs **102,90,14,005/-(Rupees One hundred and Two Crores Ninty Lakhs Fourteen thousand and Five only)** as detailed in Schedules for Supplies and Erection enclosed, subject to the terms and conditions set out in this order modifying certain clauses of the specification in view of GST implementation.This order is issued in regularization of 'Notification of Award" issued in the reference 3rd cited and your acceptance letter 4th cited.

1.0. **SCOPE:**

The Scope of this order covers Supply, Erection, Testing and Commissioning of A) i) 220/132/33KV Substation at Bethamcherla and ii) 220 kV DC Line (68 KM) from 400KV SS Jammalamadugu to proposed 220KV SS Bethamcherla in Kurnool District; B) i) 220KV DC Moose line from 400KV Jammalamadugu SS to 220KV Tadipitri SS and ii)220KV Bay Extensions at 220KV Tadipatri SS in Ananthapur district; C) i) 132KV LILO of both circuits of 132KV DC line from 132KV Suzlon Wind Pooling Station-existing 132KV Jammalamadugu SS to the proposed 400/220/132KV Jammalamadugu SS(2X6KM), ii) 132KV LILO of both the circuits of existing 132KV DC/SC Badvel-Porumamilla line to the proposed 220KV SS Porumamilla on Normal Towers(1x2Km), iii) Stringing of 2nd circuit on 132KV DC/SC Badvel-Porumamilla line(36.7 km), iv) 132KV Bay Extensions at 220KV Porumamilla SS (required for LILO of Badvel-Porumamilla), v) 132KV Bay extensions at 132/33KV Porumamilla SS and vi) 132KV Bay Extensions at 132/33KV Badvel SS in Kadapa district on turnkey basis as per bidding documents of Bid No. APT-21/2016.The rates indicated in Schedules A & B appended to this order are for Supply and Erection respectively.

2.0 ABSTRACT OF SUPPLY PRICES:

Detailed schedule of prices and items is enclosed to the Purchase Order.

Si.No	Description	Amount in Rs.
6A	Supply, erection, testing & commissioning of 220/132/33KV Substation at Bethamcherla in Kurnool district.	163,448,536.82
6B	Supply, erection, testing & commissioning of 220KV DC line from Prposed Bethamcherla SS to 400KV SS Jammalamadugu in Kurnool district.	378,419,831.84
6C	Supply, erection, related civil works, testing & commissioning of 220KV DC Moose line from 400KV Jammalamadugu SS to 220KV Tadipitri SS in Ananthapur dist.	283,627,228.60

6D	Supply, erection, testing & commissioning of 220KV Bay Extensions at 220KV Tadipatri SS in Ananthapur district	28,991,527.57
6E	Supply, erection, testing & commissioning of 132KV LILO of both circuits of 132KV DC line from 132KV Suzlon Wind Pooling Station-existing 132KV Jammalamadugu SS to the proposed 400/220/132KV JammalamaduguSS(2X6KM) in kadapa dist.	80,976,630.76
6F	Supply, erection, testing & commissioning of 132KV LILO of both the circuits of existing 132KV DC/SC Badvel-Porumamilla line to the proposed 220KV SS Porumamilla on Normal Towers(1x2Km) in kadapa dist.	23,082,728.77
6G	Stringing of 2nd circuit on 132KV DC/SC Badvel-Porumamilla line(36.7 km) in kadapa dist.	25,994,075.85
6H	Supply, erection, testing & commissioning of 132KV Bay Extensions at 220KV Porumamilla SS(required for LILO of Badvel-Porumamilla) in kadapa dist	23,634,289.90
6I	Supply, erection, testing & commissioning of 132KV Bay extensions at 132/33KV Porumamilla SS in kadapa dist	8,583,670.01
6J	Supply, erection, testing & commissioning of 132KV Bay Extensions at 132/33KV Badvel SS in Kadapa district	12,255,485.13
Total Package cost including taxes		**1,029,014,005.25**

Or say Rs.**1,029,014,005/-**

Rs **102,90,14,005/-(Rupees One hundred and Two Crores Ninty Lakhs Fourteen thousand and Five only)**

3.0 PRICES AND PRICE ADJUSTMENTS:

3.1 The Prices shall be as specified in Particular Condition Sub-Clause 11 of Volume - I of Bidding Document and Appendix - 2 of the specification.

The Prices of the Plants / materials (Equipment and material) except Conductor and cable shall be fixed.The prices of all Erection schedules/works are Fixed.

A reference for adjudication under this clause shall be made by either party to the contract, within one year from the date of intimating the contractor of preparation of final bill or his having accepted the payment.

35.0 CORRESPONDENCE:

All the correspondence regarding the technical matters / works / payments and other field matters shall be addressed to the Superintending Engineers of the respective circles with copies marked to this office and Chief Engineer/Kadapa Zone.

35.1 GENERAL CONDITIONS OF CONTRACT AND PARTICULAR CONDITIONS OF CONTRACT:

Except it is provided otherwise in this contract, all the general, technical, commercial terms and conditions stipulated in the bidding documents for this contract shall be complied with.

36.0 DETAILS OF ENCLOSURES:

The following are the enclosures to this order, which form part of the contract.

Supply schedules and Erection schedules

Please note that all terms & conditions of Volume – I & II of specification will form part of this Order.

Yours faithfully,

CHIEF ENGINEER
CONSTRUCTION
(For and on behalf of APTRANSCO)

Copy to be returned to APTRANSCO by the Contractor duly signed on every page of this order in acknowledgement and acceptance of this order.

We accept the terms and conditions of this order.

SIGNATURE OF THE CONTRACTOR.

Copy communicated to the:

1. Chief Engineer/Civil/APTRANSCO/ Vidyut Soudha /Vijayawada.
2. Chief Engineer/Telecom/APTRANSCO/Vidyut Soudha/Vijayawada.
3. Chief Engineer / Zone / Kadapa.
4. FA & CCA (Accounts)/ APTRANSCO/ Vidyut Soudha /Vijayawada.

Copy to:

5. SAO / P & A / APTRANSCO / Vidyut Soudha / Vijayawada.
6. Superintending Engineer/ Construction/APTRANSCO/Kurnool
7. Superintending Engineer/ Construction/APTRANSCO/Kadapa
8. Superintending Engineer/ OMC/APTRANSCO/Ananthapur
9. The Executive Engineer / ConstructionAPTRANSCO/Kurnool,Kadapa, Ananthapur.
10. The Executive Engineer/Civil/ Kurnool,Kadapa, Ananthapur.

PTRANSCO

TRANSMISSION CORPORATION OF ANDHRAPRADESH LIMITED

Office of
The Superintending Engineer,
Construction Circle/AP Transco,
KURNOOL

Memo .No. SE/Const./KNL/F.No. Betemcherla/ D.No. 70 /18, Dt:11-04-2018

Sir,

Sub:- APTRANSCO – Construction Division- Kurnool – Erection of proposed 220 KV DC Line from 400 KV SS Jammalmadugu to proposed 220/132/33 KV SS Betemcherla in Kurnool (Dt.) – **Revised Profile & Tower Schedule – APPROVED** – Regarding.

Ref:-
1. Lr.No. CPT 140/SE/PM/F.Betemcherla/d.NO. 2154/18, Dt: 05.01.18.
2. Contract Award PO-433/CPT140/SE PM/APT-e-21/Betemcherla/ RM.No.4424/D.No. 2153/18, Dt: 05.01.2018.
3. Memo.No.SE/Const./KNL/AE-T/F.84/D.No. 197/16, Dt: 18.05.2016.
4. Lr.No. EE/Const./Div/AE(T)/KNL/F.No.Betemcherla/ D.No. /18, Dt: 06-04-2018.
5. Lr.No. SE/Const./KNL/F.No. Betemcherla/ D.No. 48/18, Dt:09-04-2018

****

The above subject work was awarded to M/s Megha Eng & Infrastructures Ltd., Hyderabad on turnkey basis and the work is under progress.

The Profile and Tower Schedule for the work of " Erection of proposed 220 KV DC Line from 400 KV SS Jammalmadugu to proposed 220/132/33 KV SS Betemcherla in Kurnool (Dt.) for 262 locations was approved vide 3rd reference cited above.

In this connection, the Executive Engineer, construction, Kurnool vide 4th reference reported that during the check survey it was observed that Loc.Nos. 193 To 203 & from Loc Nos. 207 To 214 at Palkuru (V) in Banganpalle (M) in Kurnool (Dt.) are falling in mining Area of M/s Sree Jayajothi Cements Private Limited, (MAHA Cement) , Srinagar, Yanakadla (V), Banaganpalle(M).

Further the Executive Engineer, Construction, Kurnool reported that future execution of mining activities such as blasting etc., may damage the EHT line yielding to major breakdown and to avoid the severe right of way problem the re survey has been conducted for the above locations of 220 KV DC Line from 400 KV SS Jammalmadugu to proposed 220/132/33 KV SS Betemcherla in Kurnool (Dt.). The detailed re-survey results no-extra financial burden to AP Transco. Hence the revised profile & tower schedule for the above line is hereby **approved**.

Contd...2

AP26/7 To AP-57 (3

In this connection the Executive Engineer, Construction, Kurnool is hereby instructed to inspect the site before actual execution of work and verify the clearances, Power line crossings etc. Modifications/deletions if any during execution as per filed condition may be communicated to this office for future purpose.

Encls:-

1. **Approved Profile Roll – 3 Nos.**
   along with Revised Tower Schedule.
2. **Re- Routed Map – 1 No.**

Superintending Engineer
Construction Circle/AP Transco
Kurnool

Copy submitted to:-
The Chief Engineer/Kadapa Zone/Kadapa for favour of information.

Copy to :-
The Executive Engineer/Construction /Kurnool.

The Stock File.

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

Office of the
Chief Engineer/Construction,
Vidyut Soudha,Vijayawada.

Memo. No. CPT 140/SE-PM/F.Bethemcharls/D.No 756 /19,Dt. 30 .04.2019.

Sub:- APTRANSCO – Construction Circle, Kurnool – Erection of 220KV DC line from 400/220KV SS Jammalamadugu to the proposed 220/132/33KV SS at Bethamcherla in Kurnool (Dt) – Re-routing of the line from AP-15 to AP-25 – Revised approval- Regarding.

Ref:- 1) Contract award PO-433/CPT140/SE-PM/APT-e-21/Bethemcherla/ RM.No.4424/D.No.2153/18,Dated.05.01.2018.
2) Memo. No. CPT 140/SE-PM/F.Bethemcharls/D.No 331/19,Dt.22.02.2019
3) Lr.No.SE/Const/KNL/AEE-T/F.No.70/D.No.34/19,dated.08.04.2019

* * * * *

The subject work was awarded to M/s Megha Engineering & Infrastructures Ltd., Hyderabad vide reference (1) cited above.

Approval for the Proposal of Re-routing of the line from AP-15 to AP-25 was accorded by the Technical Committee vide FLM Note file No.4013292, dated.19.02.2019.

Further, Superintending Engineer/Construction/Kurnool has requested to arrange to arrange to accord revised approval from AP-15 to AP-25 including the Reserve Forest Area(about 0.9 Hectares) and permission to address the Forest Authorities (comes under the purview of Govt. of AP).

The above revised proposal is examined and approved by the Technical Committee vide FLM Note file No.4013292, dated.22.04.2019.

30.4.19

CHIEF ENGINEER/CONSTRUCTION

To Superintending Engineer/ Construction Circle/Kurnool.

Copy to:
The Chief Engineer/Kadapa
The Executive Engineer/ Construction/Kurnool.

Surbhi\bethamcherla\lr-rerouting of line from ap-15 to ap-25- revised.doc