



HP POWER TRANSMISSION CORPORATION LIMITED

(A State Government Undertaking)

BAROWALIAS HOUSE, KHALINI, SHIMLA-2

Ph:-0177-2626272, FAX:-2620227, 2626284.

NO: HPPTCL/ 220 kV LILO- Fozal/2012- 13- 774

Dated:- 8-5-12

To

M/S Hythro Power Corporation Limited,

TECPRO HOUSE , Plot No.: 78 ,Sector- 34,

National Highway – 8, Gurgaon (Haryana).

Fax: 0124-4814141.

Subject :- DETAILED AWARD OF CONTRACT FOR ERECTION CONTRACT against Tender No. DGM/C/Palchan-AD Hydro/1/2009 for Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis.- **AMENDMENT THEREOF.**

Reference :- This office reference to the following :-

1. Contract Agreement For Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis, signed on dated: 11th March'2010.
2. This Office Letter NO: HPPTCL/ Hythro Power/Palchan- AD Hydro/2011-12- 6114 dated: 03-12-2011.
3. Your Letter No. HPCL/HPPTCL/ 122 – S / 11-12 / 4212 dated: 05-12-2011.
4. This Office Letter NO: HPPTCL/ Hythro Power/Palchan- AD Hydro/2011-12- 6393 dated: 19-12-2011.
5. Your Letter No. HPCL/HPPTCL/ 122 – S / 11-12 / 3512 dated: 31-12-2011.
6. This Office Letter NO: HPPTCL/ Fozal – 220 kV D/C LILO/2011-12- 6656 - 6662 dated : 31-12-2011.

Received
M/s Hythro
9/5/12

7. This Office Letter NO: HPPTCL/ Fozal – 220 kV D/C LILO/2011-12- 6869 dated: 11-01-2011.
8. Your Letter No. HPCL/HPPTCL/ 122 – S / 11-12 / 3608 dated: 07-01-2012.

Dear Sirs,

With reference to above , I have been directed to issue following Amendments in the Contract Agreement Executed on 11-03-2010 for Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis :-

AMENDMENTS

Sr. No.	DESCRIPTION	AS PER AWARD	AMENDMENTS
1.	Para No.-2 of Award NO: HPPTCL / PALCHAN – A.D.HYDRO / 2009 - 3196 - 3200 DATED: 27-01-2010	The Scope of the “ ERECTION CONTRACT ” includes Check Survey,Optimization, Engineering, Transportation, Storage, Handling of all the Material required for the Construction of Line, and all activities at Site viz taking the Delivery of Tower Parts, Bolts and Nuts , Spring Washers, Tower Accessories such as Phase Plates, Danger Plates, Number Plates, Circuit Plates, Anti- Climbing Devices, Tower Earthing, Conductor, OPGW, Insulators, Hardware Fittings and Accessories etc. Unloading, Insurance, Storage at Site, Check Survey, Soil Investigation, Design and Casting of Foundation, Erection of Towers and their Extensions, Tack Welding of Bolts and Nuts including Supply and	The Scope of the “ ERECTION CONTRACT ” includes Check Survey,Optimization, Engineering, Transportation, Storage, Handling of all the Material required for the Construction of Line, and all activities at Site viz taking the Delivery of Tower Parts, Bolts and Nuts , Spring Washers, Tower Accessories such as Phase Plates, Danger Plates, Number Plates, Circuit Plates, Anti- Climbing Devices, Tower Earthing, Conductor, OPGW, Insulators, Hardware Fittings and Accessories etc. Unloading, Insurance, Storage at Site, Check Survey, Soil Investigation, Design and Casting of Foundation, Erection of Towers and their Extensions, Tack Welding of Bolts and Nuts including Supply and

		application of Zinc Rich Paint, Earthing of Towers, Fixing of Insulator Strings, stringing of Conductor and OPGM alongwith all necessary Line Accessories, Revetment and successful completion of Testing and commissioning of completely Erected Line on 220 kV D/C Towers from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard (12 Km) in Kullu District against Tender No. DGMC/Palchan-AD Hydro/1/2009, on Negotiated Rates as per SCHEDULE OF QUANTITIES AND PRICES FOR ERECTION – ANNEXURE – 2 and Terms and Conditions of Tender Document.	application of Zinc Rich Paint, Earthing of Towers, Fixing of Insulator Strings, stringing of Conductor and OPGM alongwith all necessary Line Accessories, Revetment and successful completion of Testing and commissioning of completely Erected Line on 220 kV D/C Towers from proposed 220 kV Sub-station at Phojal to Patlikuhal by LILO of one circuit of 220 kV D/C Line from AD Hydro Switchyard Prini to Nalagarh on Turn Key Basis (6.645 Km) in Kullu District against Tender No. DGMC/Palchan-AD Hydro/ 1 / 2009, on Negotiated Rates as per SCHEDULE OF QUANTITIES AND PRICES – ANNEXURE – 2 and Terms and Conditions of Tender Document.
2.	Price	Firm	<i>Prices for Civil Works and Erection are Variable as per IEEMA PVC with Base Date as September 2010.</i>
3.	Quantity of Civil Work	Guaranteed as per Award	<i>As per Actual measurement at Site.</i>
4.	Completion Period	4 Months from Date of Award	1 year from the Date of fresh Award or 4 months after handing over of the Land by HPPTCL free from encumbrance whichever is later

The Main Abstract Of Cost has been Revised as under:-

Sr. No.	DESCRIPTION	TENTATIVE AMOUNT	REMARKS
1.	Check Survey	41, 740	As per Item No.1(a) of Annexure-2
2	Foundation Work / Stub Setting. (payment to be released as per actual quantities executed at site on Unit Rates of various items as per Award)	1,06,01,968	As per Item No.2 to 6 of Annexure-2
3	Erection including Fixing of Accessories.	18,47,564	As per Item No.7 of Annexure-2
4	Stringing and Sagging of ACSR ZEBRA Conductor and OPGW	6,78,233	As per Item No.8 & 9 of Annexure-2
5	Earthing Towers	40,819	As per Item No.10 of Annexure-2
6	Benching and Revetment Work	78,19,204	As per Item No.11 & 12 of Annexure-2
7	Painting of Towers	37,677	As per Item No.13 of Annexure-2
8	Providing and Fixing of Coloured Globules	1,03,635	As per Item No.14 of Annexure-2
9	Testing and Commissioning Charges.	1,04,344	As per Item No.15 of Annexure-2
TOTAL :		2,12,75,184	

TOTAL OF ERECTION PORTION = 2, 12, 75, 184 /- only.

Rs. TWO CRORE TWELVE LAC SEVENTY FIVE THOUSAND ONE HUNDRED EIGHTY FOUR ONLY.

The Total Amount of Rupees Two Crore Twelve Lac Seventy Five Thousand One Hundred Eighty Four only is inclusive of Service Tax @ 10.3% and shall not be paid extra..

All other Terms and Conditions of the Contract Agreement shall remain unchanged.

The Revised Schedule Of Requirement and Price is annexed as **Annexure-2**.

Please acknowledge the receipt and acceptance within 15 days from the date of issue of this Amendment.

Yours faithfully,


Dy. General Manager (Contracts)

Copy to the following for information and necessary action:-

1. P.S. to the Director (C&P), Barowalias House, Khalini, Shimla-2.
2. P.S. to the Director (Projects), Barowalias House, Khalini, Shimla-2.

3. P.S. to the General Manager (C & D), Barowalias House, Khalini, Shimla-2
4. The DGM & Head, Trans. Design, HPPTCL, Anu, Hamirpur.
5. The DGM (Projects) HPPTCL, Barowalias House, Khalini, Shimla-2.
6. The DGM (Finance), Barowalias House, Khalini, Shimla-2.
7. The Sr. Manager (Projects), Sarabhai, Kullu.



Dy. General Manager (Contracts)

**SCHEDULE OF QUANTITIES AND PRICES FOR ERECTION OF 220 KV D/C TRANSMISSION LINE (LILO)
FROM 33 / 220 KV SUB STATION AT PHOJAL TO TAPPING POINT AT PATLIKUHAL**

Sr.No.	Description	Unit	Tentative Total Quantity	Guaranteed Quantity per tower	Unit Price (Rs.)	Total Amount (Rs.)
1	SURVEY WORK					
a)	Check Survey including Pegging of Tower Centres, Route Marking, profile Plotting, Tower Spotting etc.	Km.	6.645		6,281.42	41,740
	FOUNDATION WORK					
2	STUB SETTING INCLUDING FORM WORK					
b)	Tower Type 'X'	No.	10		4,710.57	47,106
c)	Tower Type 'Y'	No.	8		5,495.51	43,964
d)	Tower Type 'Z'	No.	2		6,281.42	12,563
3	TOWER TYPE - 'X,+3,+6'					
a)	NORMAL DRY ; (Nos. of Towers)		10			
i)	Excavation	Cu.m	383.228	95.807	126.1	48,325
ii)	Concreting M 10	Cu.m	7.684	1.921	6,576.62	50,535
iii)	Concreting M 15	Cu.m	0		7,665.56	0
iv)	Concreting M 20	Cu.m	53.176	13.294	8,259.88	4,39,227
v)	Reinforcement	MT	5.284	1.321	54,958.96	2,90,403
b)	WET (No. Of Towers)		1			
i)	Excavation	Cu.m	218.914	218.914	157.38	34,453
ii)	Concreting M 10	Cu.m	3.588	3.588	6,576.62	23,597
iii)	Concreting M 15	Cu.m	0		7,665.56	0
iv)	Concreting M 20	Cu.m	26.738	26.738	8,259.88	2,20,853
v)	Reinforcement	MT	2.109	2.109	54,958.96	1,15,908

c)	SOFT/FUSSURED RCL (Nos. of Towers)									
	i)	Excavation								
	ii)	Concreting M 10	Cu.m	0	98.521	313.78	0			
	iii)	Concreting M 15	Cu.m	0	2.036	6,576.62	0			
	iv)	Concreting M 20	Cu.m	0		7,665.56	0			
	v)	Reinforcement	Cu.m	0	14.824	8,259.88	0			
			MT	0	1.176	54,958.96	0			
d)	HARD ROCK; (Nos. of Towers)									
	i)	Excavation								
	ii)	Concreting M 10	Cu.m	0	10.569	7,966.35	0			
	iii)	Concreting M 15	Cu.m	0		6,576.62	0			
	iv)	Concreting M 20	Cu.m	0		7,665.56	0			
	v)	Reinforcement	Cu.m	0	5.923	8,259.88	0			
			MT	0	0.393	54,958.96	0			
e)	NON COHESIVE; (Nos. of Towers)									
	i)	Excavation		5						
	ii)	Concreting M 10	Cu.m	919.31	183.862	157.38	1,44,681			
	iii)	Concreting M 15	Cu.m	15.065	3.013	6,576.62	99,077			
	iv)	Concreting M 20	Cu.m	0		7,665.56	0			
	v)	Reinforcement	Cu.m	96.66	19.332	8,259.88	7,98,400			
			MT	11.27	2.254	54,958.96	6,19,387			
4 a)	TOWER TYPE - 'Y,+3,+6' NORMAL DRY ; (Nos. of Towers)									
	i)	Excavation								
	ii)	Concreting M 10	Cu.m	428.492	107.123	126.1	54,033			
	iii)	Concreting M 15	Cu.m	8.500	2.125	6,576.62	55,901			
	iv)	Concreting M 20	Cu.m	0		7,665.56	0			
	v)	Reinforcement	Cu.m	59.432	14.858	8,259.88	4,90,901			
			MT	6.420	1.605	54,958.96	3,52,837			
b)	WET (No. Of Towers)									
	i)	Excavation		1						
	ii)	Concreting M 10	Cu.m	265.489	265.489	157.38	41,783			
	iii)	Concreting M 15	Cu.m	4.347	4.347	6,576.62	28,589			
			Cu.m	0.000	0	7,665.56	0			

iv)	Concreting M 20	Cu.m	31.315	31.315	8,259.88	2,58,658
v)	Reinforcement	MT	2.947	2.947	54,958.96	1,61,964
c) SOFT/FUSSURED RCL (Nos. of Towers)						
i)	Excavation	Cu.m	123.740	123.74	313.78	38,827
ii)	Concreting M 10	Cu.m	2.496	2.496	6,576.62	16,415
iii)	Concreting M 15	Cu.m	0.000	0	7,665.56	0
iv)	Concreting M 20	Cu.m	17.710	17.71	8,259.88	1,46,282
v)	Reinforcement	MT	1.607	1.607	54,958.96	88,319
d) HARD ROCK; (Nos. of Towers)						
i)	Excavation	Cu.m	0	10.569	7,066.35	0
ii)	Concreting M 10	Cu.m	0	0	6,576.62	0
iii)	Concreting M 15	Cu.m	0	0	7,665.56	0
iv)	Concreting M 20	Cu.m	0	5.923	8,259.88	0
v)	Reinforcement	MT	0	0.393	54,958.96	0
e) NON COHESIVE; (Nos. of Towers)						
i)	Excavation	Cu.m	431.204	215.602	157.38	67,863
ii)	Concreting M 10	Cu.m	7.062	3.531	6,576.62	46,444
iii)	Concreting M 15	Cu.m	0.000	0	7,665.56	0
iv)	Concreting M 20	Cu.m	46.622	23.311	8,259.88	3,85,092
v)	Reinforcement	MT	5.054	2.527	54,958.96	2,77,763
5 TOWER TYPE - 'Z,+3,+6'						
a) NORMAL DRY ; (Nos. of Towers)						
i)	Excavation	Cu.m	371.22	123.74	126.1	46,811
ii)	Concreting M 10	Cu.m	7.521	2.507	6,576.62	49,463
iii)	Concreting M 15	Cu.m	0	0	7,665.56	0
iv)	Concreting M 20	Cu.m	54.924	18.308	8,259.88	4,53,666
v)	Reinforcement	MT	5.475	1.825	54,958.96	3,00,900
b) WET (No. Of Towers)						
i)	Excavation	Cu.m	305.981	305.981	157.38	48,155

ii)	Concreting M 10	Cu.m	5.016	5.016	6,576.62	32,988
iii)	Concreting M 15	Cu.m	0	0	7,665.56	0
iv)	Concreting M 20	Cu.m	36.552	36.552	8,259.88	3,01,915
v)	Reinforcement	MT	3.508	3.508	54,958.96	1,92,796

c) SOFT/FUSSURED RCL (Nos. of Towers)

i)	Excavation	Cu.m	144.963	144.963	313.78	45,486
ii)	Concreting M 10	Cu.m	2.944	2.944	6,576.62	19,362
iii)	Concreting M 15	Cu.m	0	0	7,665.56	0
iv)	Concreting M 20	Cu.m	21.62	21.62	8,259.88	1,78,579
v)	Reinforcement	MT	2	2	54,958.96	1,09,094

d) HARD ROCK; (Nos. of Towers)

i)	Excavation	Cu.m	0	0	7,066.35	0
ii)	Concreting M 10	Cu.m	0	10.569	6,576.62	0
iii)	Concreting M 15	Cu.m	0	0	7,665.56	0
iv)	Concreting M 20	Cu.m	0	5.923	8,259.88	0
v)	Reinforcement	MT	0	0.393	54,958.96	0

e) NON COHESIVE; (Nos. of Towers)

i)	Excavation	Cu.m	1732.444	247.492	157.38	2,72,652
ii)	Concreting M 10	Cu.m	28	4	6,576.62	1,86,769
iii)	Concreting M 15	Cu.m	0	0	7,665.56	0
iv)	Concreting M 20	Cu.m	208.817	29.831	8,259.88	17,24,803
v)	Reinforcement	MT	20.699	2.957	54,958.96	11,37,596

6 Dewatering of Pits during Concreting.

i)	Manual (Men Days)	MD	1	1	235.58	235.58
ii)	Mechanical Pimp	Hrs.	1	1	313.78	313.78
iii)	Power Driven Pump	Hrs.	1	1	235.58	235.58

7	ERECTION of all Type of Towers a/w Body Extension, Leg Extension of all Towers including fixing of Danger Plate, Number Plate, Phase Plates, Birdguard Anti Climbing Devices etc. complete in all respect.	MT	253.024	7,301.93	18,47,564
8	MOUNTING of Insulator String for Three Number ACSR 'ZEBRA' Conductor including Laying, Joining, Tensioning Stringing, Sagging and Clamping of Conductor, Fixing of Vibration Dampers, Arching Horns ec. Complete in all respect.	Km.	6.645	62,810.24	4,17,374
9	STRINGING of One Number OPGW including laying, Jointing Tensioning, Sagging, Clamping, Fixing of Vibration Dampers, Earthbond etc complete in all respect.	Km.	6.645	39,256.40	2,60,859
10	EARTHING OF TOWERS.				0
a)	Pipe Type Earthing Complete including Excavation and Backfilling work.		18	1,569.87	28,258
b)	15 Meters counterpoise Earthing complete with Excavation and Backfilling Work.		4	1,569.87	6,279
c)	30 Meters counterpoise Earthing complete with Excavation and Backfilling Work.		2	3,140.71	6,281
11	BENCHING of Tower Footings in all kind of soil.	Cu.m	6,500	196.48	12,77,120
12	RIVETMENTS				
	BREAST/ RETAINING WALLS				
i)	Excavation for Foundations in all kind of Soil.	Cu.m	8,500	235.58	20,02,430
ii)	Coping with M 15 Concrete	Cu.m	10	5,938.31	59,383
iii)	Rubble Masonry Work including Cement Mortar (1:5) Work Complete.	Cu.m	1,280	1,955.00	25,02,400

iv)	Excavation and Transportation of Soil from suitable Place and Back filling, Levelling of the Volume enclosed by Revetment Walls.	Cu.m	850	313.78	2,66,713
v)	Providing of Stone Packings at Weeps Holes.	Cu.m	1,090	1,569.87	17,11,158
13	PAINTING OF TOWERS (including Paint) having Height more than 45 m or wherever required with Orange and White Strips (Minimum 3 Bands.)	Tower	24	1,569.87	37,677
14	PROVIDING AND FIXING of Coloured Globules on OPGW of 50 cm diameter in compliance to Clause 4.13 of Part-V, Volume-II of the Specifications.	Nos.	12	8,636.21	1,03,635
15	TESTING AND COMMISSIONING CHARGES	Km	6.645	15,702.56	1,04,344
TOTAL					2,12,75,184

NOTE

- Prices mentioned above are variable with ieema base date as 09/2010.
- The Payment shall be made as per actual measurement at site subjected to maximum of Guaranteed Quantity.
- Excavation for Foundation / Bedding includes Backfilling with Excavated / Borrowed Soil and provision of shoring Shuttering, Dewatering (wherever required) etc.
- Rock Anchoring for Hard Rock Foundation includes Drilling of Holes in Rock, Providing and Fixing Reinforcement Dowel Bars, Bottom Plugging with Contractor's Material etc. complete as per approved Drawings / Specifications.
- Concreting (M: 10/ M: 15 M:20) includes providing and laying Cement Concrete of M:10/ M:15/M:20 Grade with single Sized Aggregate of nominal size 40 mm/ 20 mm including preparing surfaces, Shuttering, Mixing, Placing, Tamping, Curing and Finishing with leads and lifts etc. and including Cost of Cement, Sand, Aggregate and Reinforcement.
- Reinforcement includes Providing, Cutting, Bending, Binding, Fixing and Placing of Steel Reinforcement as per
- Quantities mentioned under heading "Tentative Total Quantity" show the Quantum of Work for Total Number of Tower Locations (and not Quantum of Work per Tower). The Unit Rates shall be considered for Payment Purpose the contract.



HP POWER TRANSMISSION CORPORATION LIMITED

(A State Government Undertaking)

BAROWALIAS HOUSE, KHALINI, SHIMLA-2

Ph:-0177-2626272, FAX:-2626284, 2620227

NO: HPPTCL/ 220 kV LILO- Fozal/2012- 13- 1325-32

Dated:- 5/6/12

To

M/S Hythro Power Corporation Limited,

TECPRO HOUSE, Plot No.: 78 , Sector- 34,

National Highway – 8, Gurgaon (Haryana).

Fax: 0124-4814141.

Subject: - AMMENDMENT IN DETAILED AWARD OF CONTRACT FOR ERECTION CONTRACT against Tender No. DGMC/Palchan-AD Hydro/1/2009 for Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis - **RIVISION-1**.

Reference: 1.This office Amendment NO: HPPTCL/ 220 kV LILO- Fozal/2012- 13- 774 Dated: 08-05-2012.
2. Your letter No.: HPCL/HPPTCL/ 220 kV LILO- Fozal / 12-13 / 1043 dated: 11-05-2012.

Dear Sirs,

With reference to above, it is intimated as under:-

1. The hike in **Service Tax** is allowed and the Revised Schedule of Quantity and Prices is attached as **Annexure-II (Revision-1)**.
2. The Quantity of Stringing is corrected in the Revised Schedule of Quantity and Prices and the Main Abstract of Cost is Revised as under :-

Sr. No.	DESCRIPTION	TENTATIVE AMOUNT	REMARKS
1.	Check Survey	42, 520	As per Item No.1(a) of Annexure-II (Revision-1)
2	Foundation Work / Stub Setting. (payment to be released as per actual quantities executed at site on Unit Rates of various items as per Award)	1,07,99,961	As per Item No.2 to 6 of Annexure-II (Revision-1)
3	Erection including Fixing of Accessories.	18,82,069	As per Item No.7 of Annexure-II (Revision-1)

4	Stringing and Sagging of ACSR ZEBRA Conductor and OPGW	9,56,630	As per Item No.8 & 9 of Annexure-II (Revision-1)
5	Earthing Towers	41,581	As per Item No.10 of Annexure-II (Revision-1)
6	Benching and Revetment Work	79,65,238	As per Item No.11 & 12 of Annexure-II (Revision-1)
7	Painting of Towers	38,381	As per Item No.13 of Annexure-II (Revision-1)
8	Providing and Fixing of Coloured Globules	1,05,570	As per Item No.14 of Annexure-II (Revision-1)
9	Testing and Commissioning Charges.	1,06,292	As per Item No.15 of Annexure-II (Revision-1)

TOTAL: 2, 19, 38,242

TOTAL OF ERECTION PORTION = 2, 19, 38, 242 /- only.

Rs. TWO CRORES NINETEEN LACS THIRTY EIGHT THOUSAND TWO HUNDRED FORTY TWO ONLY.

The Total Amount of Rupees Two Crore Nineteen Lacs Thirty Eight Thousand Two Hundred & Forty Two only is inclusive of **Service Tax @ 12.36 %** and shall not be paid extra.

3. The condition of "**subjected to maximum of Guaranteed Qty**" is withdrawn and corrected in Annexure – II (Revision-1).
4. In the Amendment at Sr. No. – 3, it has been mentioned that quantity of civil work shall be as per actual measurement at site and in Main Abstract of Cost at Sr. No.: 2 it is clear that the payment shall be made on Unit Rates of various items as per Award.

This is for information and further necessary action in the matter. Your acceptance to the **Amendment and RIVISION-1** should reach this office within 10 days of issue of this letter.

Yours faithfully,


Dy. General Manager (Contracts)

Copy to the following for information and necessary action:-

1. P.S. to the Director (C&P), Barowalias House, Khalini, Shimla-2.
2. P.S. to the Director (Projects), Barowalias House, Khalini, Shimla-2.
3. P.S. to the General Manager (C & D), Barowalias House, Khalini, Shimla-2.
4. The DGM & Head, Trans. Design, HPPTCL, Anu, Hamirpur.
5. The DGM (Projects) HPPTCL, Barowalias House, Khalini, Shimla-2.
6. The DGM (Finance), Barowalias House, Khalini, Shimla-2.
7. The Sr. Manager (Projects), Sarabhai, Kullu.


Dy. General Manager (Contracts)

C19

ANNEXURE- II (REVISION-1)

SCHEDULE OF QUANTITIES AND PRICES

Sr.No.	Description	Unit	Tentative Total Quantity	Guaranteed Quantity per tower	Unit Price (Rs.)	Total Amount (Rs.)
1	SURVEY WORK					
a)	Check Survey including Pegging of Tower Centres, Route Marking, profile Plotting, Tower Spotting etc.	Km.	6.645		6398.73	42,520
2	FOUNDATION WORK					
	STUB SETTING INCLUDING FORM WORK					
b)	Tower Type 'X'	No.	10		4798.55	47,985
c)	Tower Type 'Y'	No.	8		5598.15	44,785
d)	Tower Type 'Z'	No.	2		6398.73	12,797
3	TOWER TYPE - 'X,+3,+6'		10			
a)	NORMAL DRY ; (Nos. of Towers)		4			
i)	Excavation	Cu.m	383.228	95.807	128.46	49,228
ii)	Concreting M 10	Cu.m	7.684	1.921	6699.45	51,479
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	53.176	13.294	8414.14	4,47,431
v)	Reinforcement	MT	5.284	1.321	55985.39	2,95,827
b)	WET (No. Of Towers)		1			
i)	Excavation	Cu.m	218.914	218.914	160.32	35,096
ii)	Concreting M 10	Cu.m	3.588	3.588	6699.45	24,038
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	26.738	26.738	8414.14	2,24,977
v)	Reinforcement	MT	2.109	2.109	55985.39	1,18,073
c)	SOFT/FUSSURED RCL (Nos. of Towers)		0			
i)	Excavation	Cu.m	0	98.521	319.64	0
ii)	Concreting M 10	Cu.m	0	2.036	6699.45	0
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	0	14.824	8414.14	0
v)	Reinforcement	MT	0	1.176	55985.39	0
d)	HARD ROCK; (Nos. of Towers)		0			
i)	Excavation	Cu.m	0	10.569	8115.13	0
ii)	Concreting M 10	Cu.m	0		6699.45	0
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	0	5.923	8414.14	0
v)	Reinforcement	MT	0	0.393	55985.39	0
e)	NON COHESIVE; (Nos. of Towers)		5			
i)	Excavation	Cu.m	919.31	183.862	160.32	1,47,383
ii)	Concreting M 10	Cu.m	15.065	3.013	6699.45	1,00,927
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	96.66	19.332	8414.14	8,13,311
v)	Reinforcement	MT	11.27	2.254	55985.39	6,30,955

4	TOWER TYPE - 'Y,+3,+6'		8				
a)	NORMAL DRY ; (Nos. of Towers)		4				
i)	Excavation	Cu.m	428.492	107.123	128.46	55,042	
ii)	Concreting M 10	Cu.m	8.500	2.125	6699.45	56,945	
iii)	Concreting M 15	Cu.m	0		7808.72	0	
iv)	Concreting M 20	Cu.m	59.432	14.858	8414.14	5,00,069	
v)	Reinforcement	MT	6.420	1.605	55985.39	3,59,426	
b)	WET (No. Of Towers)		1				
i)	Excavation	Cu.m	265.489	265.489	160.32	42,563	
ii)	Concreting M 10	Cu.m	4.347	4.347	6699.45	29,122	
iii)	Concreting M 15	Cu.m	0.000	0	7808.72	0	
iv)	Concreting M 20	Cu.m	31.315	31.315	8414.14	2,63,489	
v)	Reinforcement	MT	2.947	2.947	55985.39	1,64,989	
c)	SOFT/FUSSURED RCL (Nos. of Towers)		1				
i)	Excavation	Cu.m	123.740	123.74	319.64	39,552	
ii)	Concreting M 10	Cu.m	2.496	2.496	6699.45	16,722	
iii)	Concreting M 15	Cu.m	0.000	0	7808.72	0	
iv)	Concreting M 20	Cu.m	17.710	17.71	8414.14	1,49,014	
v)	Reinforcement	MT	1.607	1.607	55985.39	89,969	
d)	HARD ROCK; (Nos. of Towers)		0				
i)	Excavation	Cu.m	0	10.569	7198.32	0	
ii)	Concreting M 10	Cu.m	0	0	6699.45	0	
iii)	Concreting M 15	Cu.m	0	0	7808.72	0	
iv)	Concreting M 20	Cu.m	0	5.923	8414.14	0	
v)	Reinforcement	MT	0	0.393	55985.39	0	
e)	NON COHESIVE; (Nos. of Towers)		2				
i)	Excavation	Cu.m	431.204	215.602	160.32	69,130	
ii)	Concreting M 10	Cu.m	7.062	3.531	6699.45	47,311	
iii)	Concreting M 15	Cu.m	0.000	0	7808.72	0	
iv)	Concreting M 20	Cu.m	46.622	23.311	8414.14	3,92,284	
v)	Reinforcement	MT	5.054	2.527	55985.39	2,82,950	
5	TOWER TYPE - 'Z,+3,+6'		6				
a)	NORMAL DRY ; (Nos. of Towers)		3				
i)	Excavation	Cu.m	371.22	123.74	128.46	47,685	
ii)	Concreting M 10	Cu.m	7.521	2.507	6699.45	50,387	
iii)	Concreting M 15	Cu.m	0	0	7808.72	0	
iv)	Concreting M 20	Cu.m	54.924	18.308	8414.14	4,62,138	
v)	Reinforcement	MT	5.475	1.825	55985.39	3,06,520	
b)	WET (No. Of Towers)		1				
i)	Excavation	Cu.m	305.981	305.981	160.32	49,055	
ii)	Concreting M 10	Cu.m	5.016	5.016	6699.45	33,604	
iii)	Concreting M 15	Cu.m	0	0	7808.72	0	
iv)	Concreting M 20	Cu.m	36.552	36.552	8414.14	3,07,554	
v)	Reinforcement	MT	3.508	3.508	55985.39	1,96,397	

51

c)	SOFT/FUSSURED RCL (Nos. of Towers)		1			
i)	Excavation	Cu.m	144.963	144.963	319.64	46,336
ii)	Concreting M 10	Cu.m	2.944	2.944	6699.45	19,723
iii)	Concreting M 15	Cu.m	0	0	7808.72	0
iv)	Concreting M 20	Cu.m	21.62	21.62	8414.14	1,81,914
v)	Reinforcement	MT	2	2	55985.39	1,11,131
d)	HARD ROCK; (Nos. of Towers)		0			
i)	Excavation	Cu.m	0	10.569	7198.32	0
ii)	Concreting M 10	Cu.m	0		6699.45	0
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	0	5.923	8414.14	0
v)	Reinforcement	MT	0	0.393	55985.39	0
e)	NON COHESIVE; (Nos. of Towers)		1			
i)	Excavation	Cu.m	1732.444	247.492	160.32	2,77,744
ii)	Concreting M 10	Cu.m	28	4	6699.45	1,90,258
iii)	Concreting M 15	Cu.m	0		7808.72	0
iv)	Concreting M 20	Cu.m	208.817	29.831	8414.14	17,57,016
v)	Reinforcement	MT	20.699	2.957	55985.39	11,58,842
6	Dewatering of Pits during Concreting.	Towers	3			
i)	Manual (Men Days)	MD	1		239.98	235.58
ii)	Mechanical Pimp	Hrs.	1		319.64	313.78
iii)	Power Driven Pump	Hrs.	1		239.98	235.58
7	ERECTION of all Type of Towers a/w Body Extension, Leg Extension of all Towers including fixing of Danger Plate, Number Plate, Phase Plates, Birdguard Anti Climbing Devices etc. complete in all respect.	MT	253.024		7438.30	18,82,069
8	MOUNTING of Insulator String for Three Number ACSR 'ZEBRA' Conductor including Laying, Joining, Tensioning Stringing, Sagging and Clamping of Conductor, Fixing of Vibration Dampers, Arching Horns etc. Complete in all respect.	Km.	6.645		63983.31	4,25,169
9	STRINGING of One Number OPGW including laying, Jointing Tensioning, Sagging, Clamping, Fixing of Vibration Dampers, Earthbond etc complete in all respect. (2X6.645)	Km.	13.29		39989.57	5,31,461
10	EARTHING OF TOWERS.					
a)	Pipe Type Earthing Complete including Excavation and Backfilling work.		18		1599.19	28,785
b)	15 Meters counterpoise Earthing complete with Excavation and Backfilling Work.		4		1599.19	6,397

52

c)	30 Meters counterpoise Earthing complete with Excavation and Backfilling Work.		2	3199.37	6,399
11	BENCHING of Tower Footings in all kind of soil.	Cu.m	6,500	200.15	13,00,972
12	RIVETMENTS				
	BREAST/ RETAINING WALLS				
i)	Excavation for Foundations in all kind of Soil.	Cu.m	8,500	239.98	20,39,828
ii)	Coping with M 15 Concrete	Cu.m	10	6049.22	60,492
iii)	Rubble Masonary Work including Cement Mortar (1:5) Work Complete.	Cu.m	1,280	1991.51	25,49,136
iv)	Excavation and Transportation of Soil from suitable Place and Back filling, Levelling of the Volume enclosed by Revetment Walls.	Cu.m	850	319.64	2,71,694
v)	Providing of Stone Packings at Weeps Holes.	Cu.m	1,090	1599.19	17,43,116
13	PAINTING OF TOWERS (including Paint) having Height more than 45 m or wherever required with Orange and White Strips (Minimum 3 Bands.)	Tower	24	1599.19	38,381
14	PROVIDING AND FIXING of Coloured Globules on OPGW of 50 cm diameter in compliance to Clause 4.13 of Part-V, Volume-II of the Specifications.	Nos.	12	8797.50	1,05,570
15	TESTING AND OMMISSIONING CHARGES	Km	6.645	15995.83	1,06,292
TOTAL					2,19,38,242

NOTE

- Prices mentioned above are variable with ieema base date as 09/2010.
- The Payment shall be made as per actual measurement at site.
- Excavation for Foundation / Benchng includes Backfilling with Excavated / Borrowed Soil and provision of shoring Shuttering, Dewatering (wherever required) etc.
- Rock Anchooring for Hard Rock Foundation includes Drilling of Holes in Rock, Providing and Fixing Reinforcement Dowel Bars, Bottom Plugging with Contractor's Material etc. complete as per approved Drawings / Specifications.
- Concreting (M: 10/ M: 15 M:20) includes providing and laying Cement Concrete of M:10/ M:15/M:20 Grade with single Sized Aggregate of nominal size 40 mm/ 20 mm including preparing surfaces, Shuttering, Mixing, Placing, Tamping, Curing and Finishing with leads and lifts etc. and including Cost of Cement, Sand, Aggregate and Reinforcement.
- Reinforcement includes Providing, Cutting, Bending, Binding, Fixing and Placing of Steel Reinforcement as per Drawings and Specifications.
- Quantities mentioned under heading "Tentative Total Quantity" show the Quantum of Work for Total Number of Tower Locations (and not Quantum of Work per Tower). The Unit Rates shall be considered for Payment Purpose.


 Dy. General Manager (Contracts)

(A State Govt. Undertaking)

smgrkulu.hoptcl@gmail.com

dated: 23/5/2014

To

✓ The Deputy General Manager (Contracts),
Browallias House, Khalini, Shimla-2.

Subject: Price variation Bill PV-RA-1 to PV-RA 6, in respect of the Erection of 220 kV D/C transmission line from Phojal to Patalikulh.

Reference: LOA No- HPPTCL/220kV-LILO- Fozal/ 2012-13-325-32, dated 05.06.12

Your office letter no- HPPTCL/ Contract/ Hythro/220 kV LILO Phojal/2013-14-69/1-74, dated 28.02.2014.

Sir,

"JAI HIND"

Enclosed herewith are the price variation bills, PV-RA-1 to PV-RA-6, for the Running account Bill from RA-1 to RA-6, of M/s Hythro Power Corporation Ltd. against the erection L.O.A under reference, duly verified and recorded in the MB-No-HPPTCL/SMS/17.

Detail of these Bills are as under:-

S.No.	PV Bill reference	Price variation payable
1	PV-RA-1	8341/-
2	PV-RA-2	1,59,264/-
3	PV-RA-3	3,84,159/-
4	PV-RA-4	5,52,793/-
5	PV-RA-5	2,31,709/-
6	PV RA-6	5,82,772/-
	Total	18,88,038/-
	Less Deduction of Taxes @ 5%	-94,402/-
	Net Payable	17,93,636/-

M.D.
 D. (P. & C)
 P. C. & S.
 S.

✓

20/5/11
 20/5/11

DGm(L)

Sr. Magriles
Hwy



IEEMA indices considered in the calculation of these Bills are taken from the Photostat Copies of the IEEMA circular provided by the firm.

Calculation sheets as per the contract agreement is also enclosed with every bill.

Submitted for further necessary action at your end please.

DA. As above with MB NO HPPTCL / SMS -17

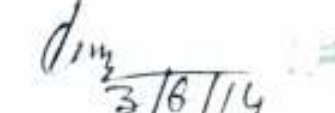
Yours faithfully,


Sr Manager (Projects)

sd/-

The P.V. formulas have been checked and are as per already approved by this office vide letter No. HPPTCL/contracts/Hydrabad/220KV LILCO Phojal/2013-14-6971-74 dt. 28/5/14 (photocopy enclosed) submitted for further action in the matter please.

DGM(F)


3/6/14
Dy Mgrs (C)



H.P. POWER TRANSMISSION CORPORATION LTD.

(A State Govt. Undertaking)

Division Sarabai, Bhunter, Distt. Kullu (H.P.) 175125.

Telefax: 01902-265157, Email: srmgrkullu.hpptcl@gmail.com

Head Office: Browalias House Khalini Shimla-2 (H.P.) 171002. Telefax: 0177-2626284.

www.hpptcl.gov.in

No. HPPTCL/SMS/DB-2/2015-28-29

dated: 25/4/2015

To

✓ The Deputy General Manager (Contracts),
Browalias House, Khalini, Shimla-2

Subject: Price variation Bill PV-RA-13(Civil) and PV-RA-1 & 2 (Electrical) in respect of the Erection of 220 kV D/C transmission line from Phojal to Patalikulh.

Reference: I. LOA No- HPPTCL/220kV-LILO- Fozal/ 2012-13-325-32 dated 05.06.12

II. Your office letter no- HPPTCL/ Contract/ Hythro/220 kV LILO Phojal/2013-14-6971-74, dated 28.02.2014

III. Time Extension letter No HPPTCL/ 220 kV LILO Phojal/ 2015-16-404-07, dated 24.04.2015

Sd

"JAI HIND"

Enclosed herewith are the price variation bill PV-RA-13 (Civil) and PV-RA-1 (Electrical) and PV-RA-2 (Electrical) for the Running account Bill RA-13 (Civil) RA-1(Electrical) and RA-2 (Electrical) of M/s Hythro Power Corporation Ltd. against the erection LOA under reference, duly verified and recorded in the MB No-

Details of these Bills are as under

S.NO.	PV BILL REFERENCE	AMOUNT
1.	PV-RA-13(Civil) MB No-28	
	Verified Amount	5,51,328=00/
	Less Deduction of Taxes @ 5%	(-) 27,567=00/
	Net Payable of PVRA-13(Civil)	5,23,761=00/
2.	PV-RA-1 (Electrical)	
	Verified Amount	3,98,162=00/
	Less Deduction of Taxes @ 5%	(-) 19,939=00/

	Net Payable of PVRA-1(Electrical)	3,78,843=00/
3	PV-RA-2 (Electrical)	
	Verified Amount	1,26,182=00/
	Less Deduction of Taxes @ 5%	(-) 6,309=00/
	Net Payable of PVRA-2(Electrical)	1,19,873=00/
	Net Amount Payable (sr. no 1+2+3)	10,22,477=00

IEEMA indices considered in the calculation of these Bills are taken from the Photostat Copies of the IEEMA circular provided by the firm.

Calculation sheets as per the contract agreement have also enclosed with every bill.

Submitted for further necessary action at your end please.

Yours faithfully,

Sr. Manager (Projects)

Copy to the DKSM (Finance) Browalias House Khalini Shimla-2 with MR No-
information Please

for

Sr. Manager (Projects)

The PV-formular have been checked and are as per already approved by this office vide letter No. 415/PV-2/Projects/Hydwat/320KV L.L.C. Pugal/Bareilly-6931-24 dt 20/02/2014.

Submitted for further action in the matter for

Sr. Manager (F)

Sr. Manager (F)

27/1/14



H.P. POWER TRANSMISSION CORPORATION LTD.

(A State Govt. Undertaking)

Division Sarabai, Bhunter, Distt. Kullu. (H.P.) 175125.

Telefax: 01902- 265157, Email: srmgrkullu.hpptcl@gmail.com

Head Office: Browalias House Khalini Shimla-2 (H.P.) 171002, Telefax: 0177-2626284;

www.hpptcl.gov.in

No HPPTCL /SMS/DB-21/2015

196-97

dated: 13/7/2015

To

✓ The Deputy General Manager (Contracts),
Browalias House, Khalini, Shimla-2.

Subject: Price variation Bill PV-RA-14(Civil) and PV-RA-3 & 4 (Electrical) in respect of the Erection of 220 kV D/C transmission line from Phojar to Patalikulh.

Reference: i. LOA No- HPPTCL/220kV-LILO- Fozal/ 2012-13-325-32, dated 05.06.12.

ii. Your office letter no- HPPTCL/ Contract/ Hythro/220 kV LILO Phojar/2013-14-6971-74, dated 28.02.2014.

iii. Time Extension letter No HPPTCL/ 220 kV LILO Phojar/ 2015-16-404-07, dated 24.04.2015.

1.D.	Sir,
Mr. (Plg & C)	
Mr. (Proj.)	
S.M. (C&D) ✓	
S.M. (Proj.)	
G.M. (Fin.)	
Mr. Mgr. (P&A)	

"JAI HIND"

Enclosed herewith are the price variation bill, PV-RA-14 (Civil) and PV RA-3 (Electrical) and PV RA-4 (Electrical) for the Running account Bill RA-14 (Civil) . RA-3(Electrical) and RA-4 (Electrical) of M/s

Hythro Power Corporation Ltd. against the erection LOA under reference, duly verified and recorded in the MB-

No-HPPTCL/SMS/17 and 24

Details of these Bills are as under:

S.NO.	PV BILL REFERENCE	AMOUNT
1.	PV-RA-14(Civil) MB No-28	
	Verified Amount	7,07,104=00/
	Less Deduction of Taxes @ 5%	(-) 35,335=00/
	Net Payable of PVRA-14(Civil)	6,71,749=00/
2.	PV-RA-3 (Electrical)	
	Verified Amount	1,91,216=00/
	Less Deduction of Taxes @ 5%	(-) 9,561=00/

	Net Payable of PVRA-1(Electrical)	1,81,655=00/
3	PV-RA-4 (Electrical)	
	Verified Amount	2,09,738=00/
	Less Deduction of Taxes @ 5%	(-) 10,487=00/
	Net Payable of PVRA-2(Electrical)	1,99,251=00/
	Net Amount Payable (sr. no 1+2+3)	10,52,675=00

IEEMA indices considered in the calculation of these Bills are taken from the Photostat Copies of the IEEMA circular provided by the firm.

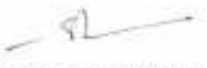
Calculation sheets as per the contract agreement have also enclosed with every bill.

Submitted for further necessary action at your end please

Yours faithfully,


Sr. Manager (Projects)

Copy to the DGM (Finance), Browalias House Khalini Shimla-2, with MB No- HPPTCL/SMS/17 & 24 (2 nos) for information Please.


Sr. Manager (Projects)

The P.V. formulae have been checked and are as per already approved by this office vide letter No: HPPTCL/contracts/Hytlr/220KV L1 L2 Phojal/2013-14-6971-74 dt. 28/2/14.

Submitted for further action in the matter pl.

DGM(F)


14/3/15
Dy. Manager (C)



H.P. POWER TRANSMISSION CORPORATION LTD.

(A State Govt. Undertaking)

Division Sarabai, Bhunter, Distt. Kullu, (H.P). 175125.

Telefax: 01902- 265157, Email: srmgrkullu.hpptcl@gmail.com

Head Office: Browalias House Khalini Shimla-2 (H.P) 171002, Telefax: 0177-2626284.

www.hpptcl.gov.in

No. HPPTCL /SMS/DB-21/2015

432-33

dated 34/11/2015

To

✓ The Deputy General Manager (Contracts),
Browalias House, Khalini, Shimla-2

Subject: Price variation Bill PV-RA-15(Civil) and PV-RA-5 (Electrical) in respect of the Erection of 220 kV D/C transmission line from Phojar to Patalikulh.

- Reference:
- i. LOA No- HPPTCL/220kV-LILO- Fozal/ 2012-13-325-32, dated 05.06.12.
 - ii. Your office letter no- HPPTCL/ Contract/ Hythro/220 kV LILO Phojar/2013-14-6971-74, dated 28.02.2014.
 - iii. Time Extension letter No HPPTCL/ 220 kV LILO Phojar/ 2015-16-404-07, dated 24.04.2015.

Sir,

"JAI HIND"

Enclosed herewith are the price variation bill, PV-RA-15 (Civil) and PV RA-5 (Electrical) for the Running account Bill RA-15 (Civil) and RA-5 (Electrical) of M/s Hythro Power Corporation Ltd. against the erection LOA under reference, duly verified and recorded in the MB-No-HPPTCL/SMS/29

Details of these Bills are as under:

S.NO.	PV BILL REFERENCE	AMOUNT
1.	PV-RA-5(Electrical) MB No-29	
	Verified Amount	1,31,337.1=00
	Less Deduction of Taxes @ 5%	(-) 5,669=00
	Net Payable of PVRA-5 (Electrical)	1,07,702=00
2.	PV-RA-15 (Civil)	
	Verified Amount	2,37,351=25

Less Deduction of Taxes @ 5%	(-) 11,867=56
Net Payable of PVRA-15(Civil)	2,25,484=00

IEEMA indices considered in the calculation of these Bills are taken from the Photostat Copies of the IEEMA circular provided by the firm.

Calculation sheets as per the contract agreement have also enclosed with every bill.

Submitted for further necessary action at your end please.

Yours faithfully,



Sr. Manager (Projects)

Copy forwarded to:

The DGM (Finance), Browalias House Khalini Shimla-2, with MB No- HPPTCL/SMS/29 for information and necessary action Please



Sr. Manager (Projects)

The PR formulae have been checked and are as per already approved by this office vide letter No: HPPTCL/contracts/Hydrate/2014-15/2014-15-6971-74 dt 28/2/2014 submitted for further action in the matter.

Sr. Mngs (C)

DGM (Finance)

2/2/15

(10/5/15)

HIMACHAL PRADESH POWER TRANSMISSION CORPORATION LIMITED
BAROWALIAS HOUSE, KHALINI, SHIMLA – 171002
FAX No.: 0177 – 2626284; PHONE No.: 2626283, 2626272

No.: HPPTCL / HYTHRO POWER / Palchan – AD Hydro / 2009 - 3196 - 3200 Dated: 27.01.2010

To,

M/S Hythro Power Corporation Limited,
810, Udyog Vihar, Phase – V, Gurgaon – 122016
Fax No.: 0124 – 4549901

Subject: **DETAIL AWARD OF CONTRACT FOR ERECTION CONTRACT** against Tender No.: **DGMC / Palchan – AD Hydro / 1 / 2009** for Detailed / Check Survey, Optimization, Design, Engineering, Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning Of 220 kV D / C Transmission Line from 220 / 33 kV Sub Station at Palchan to 220 kV A. D. Hydro Switchyard on Turn Key Basis

REFERENCE: This has reference to the following: -

- a) Bid Document No.: **DGMC / Palchan – AD Hydro / 1 / 2009** for Subject cited Package followed by Amendment issued vide this Office letter No.: HPPTCL / Palchan – AD Hydro / 2009 – 1336 dated 10.09.2009.
- b) Your Offer No.: **HPCL / HPPTCL / Tender / Technical / 09 / 1676** Dated 25th September 2009
- c) Our Fax Message / Letter numbers for Post Bid clarifications:
 - (i) **HPPTCL / Palchan – AD Hydro / 2009 – 1693** dated 09.10.2009
 - (ii) **HPPTCL / Palchan – AD Hydro / 2009 – 2154** dated 16.11.2009
- d) Clarification / Confirmation furnished by you vide your letter Nos.: -
 - (i) Your Letter No.: **HPCL / HPPTCL / Tender / Technical / 09 / 1676** Clr - 1 Dated 20th October 2009
 - (ii) **HPCL / HPPTCL / Tender / Technical / 09 / 1676** - Clr - 2 Dated 21st November 2009
 - (iii) **HPCL / HPPTCL / Price – 2** dated 14.12.2009

Dear Sirs,

In continuation to this Office Letter of Intent vide No.: HPPTCL / HYTHRO POWER / Palchan – AD Hydro / 2009 – 2823 dated 29.12.2009 and your Acceptance vide your Letter No.: HPCL / HPSEB / 123 – E / 09 / 2457 dated January 07, 2010, I have been authorised to intimate you that your above referred offer against this Office Tender Document No.: DGMC / Palchan – AD Hydro / 1 / 2009 for Construction of 220 kV S / C Transmission Line on 220 kV D / C Towers from 220 / 33 kV Palchan Sub Station to 220 kV A. D. Hydro Switchyard has been accepted.

The Scope of this "ERECTION CONTRACT" includes Check Survey, Optimization, Engineering, Transportation, Storage, Handling of all the Material required for the Construction of Line, and all activities at Site viz taking the Delivery of Tower Parts, Bolts and Nuts, Spring Washers, Tower Accessories such as Phase Plates, Danger Plates, Number Plates, Circuit Plates, Anti - Climbing Devices, Tower Earthing, Conductor, OPGW, Insulators, Hardware Fittings and Accessories etc Unloading, Insurance, Storage at Site, Check Survey, Soil Investigation, Design and Casting of Foundation, Erection of Towers and their Extensions, Tack Welding of Bolts and Nuts including Supply and application of Zinc Rich Paint, Earthing of Towers, Fixing of Insulator Strings, Stringing of Conductor and OPGW alongwith all necessary Line Accessories, Revetment and successful completion of Testing and Commissioning of completely Erected Line for 220 kV S / C Transmission Line on 220 kV D / C Towers from 220 / 33 kV Sub Station at Palchan to 220 kV A. D. Hydro Switchyard (12 km) in Kullu District against Tender No.: **DGMC / Palchan – AD Hydro / 1 / 2009**, on Negotiated Rates as per **SCHEDULE OF QUANTITIES AND PRICES FOR ERECTION - ANNEXURE – 2** and Terms and Conditions of Tender Document.

Space for Contractor's Office, Store, Workshop, Labour Colony etc and Power and Water Supply are to be arranged by the Contractor at Site and the Owner will not in any way be responsible for any claim on this account whatsoever.

The Contractor shall completely Erect the 220 kV Single Circuit Transmission Line from 220 kV Palchan Switchyard to 220 kV A. D. Hydro Switchyard and the quantities mentioned in Annexure – 2 to this Award are Tentative. All Items of Erection falling within these two points including reasonable quantity of Spares shall be deemed to be included in the Scope of Work.

The Contractor shall conduct the Route Survey and Plot the Profile based on the Parameters specified in the Technical Specification. The Spotting of Tower shall be carried out with the help of Sag Template and Tower Spotting Data prepared according to Technical Specifications. Based on this various quantities for erection activities shall be furnished by the Contractor to the Owner for approval. The Contract will be determined accordingly and liability of HPPTCL is limited to that extent only.

In case Angle of Deviation exceed 55° or spotting of offered Design of 'Z' Type Tower is not feasible, the Contractor will provide Additional Tower(s) to meet the requirements.

The Scope of Works under this Contract shall also include all such Items which are not specifically mentioned in the Tender Document / and / or your proposal but are incidental and necessary for the successful Erection, Testing and Commissioning of the Line unless otherwise specifically excluded in the Tender Documents or this Award.

We have also Awarded the Work for Optimisation, Design, Engineering, Manufacture, Supply, Transportation, Storage, Handling of all the Material required for the Construction of said Line vide Award No.: HPPTCL / Hythro Power / Palchan - AD Hydro / 2009 - 3191 - 95 dated 27.01.2010 (herein after referred to as the First Contract). The Contractor shall also be fully responsible for the supply of complete

3

Material under the First Contract and it is expressly understood and agreed that any breach under the First Contract shall automatically be deemed as a breach of this (Second Contract) and vice – versa. The Main Abstract of Cost is as under: -

Sr. No.	DESCRIPTION	AMOUNT (Rs.)	REMARKS
1	Survey	2,63,808	As per Item No. 1(a & b) of Annexure – 2
2	Foundation Work / Stub Setting	1,57,25,249	As per Item No. 2 to 8 of Annexure – 2
3	Erection including Fixing of Accessories	45,82,764	As per Item No. 9 of Annexure – 2
4	Stringing and Sagging of ACSR ZEBRA Conductor and OPGW	12,24,800	As per Item No. 10 and 11 of Annexure – 2
5	Earthing of Towers	83,209	As per Item No. 12 of Annexure – 2
6	Benching and Revetment Work	1,86,77,070	As per Item No. 13 of Annexure – 2
7	Painting Of Towers	54,945	As per Item No. 14 of Annexure – 2
8	Providing and Fixing of Coloured Globules	3,36,812	As per Item No. 15 of Annexure – 2
9	Testing and Commissioning Charges	1,88,431	As per Item No. 16 of Annexure – 2
TOTAL		411,37,088	

RUPEES FOUR CRORE ELEVEN LAC THIRTY SEVEN THOUSAND EIGHTY EIGHT ONLY

The Total Amount of Rupees Four Crore Eleven Lac Thirty Seven Thousand Eighty Eight Only is inclusive of Service Tax @ 10.3 % and shall not be paid extra.

The Main Terms and Conditions are detailed below.

MAIN TERMS AND CONDITIONS:

1. PRICES:

The Price shall be applicable as per UNIT Rates for various Items.

The Prices are FIRM and No Price Variation is admissible.

If during Execution of the Contract, it is felt that certain Items, for which No Rates have been quoted / mentioned in this Award, are required for Construction and successful Commissioning of the Line, nothing EXTRA shall be paid for such Item by the Purchaser / HPPTCL.

2. COMPLETION TIME:

Subject to any requirement in the Contract as to completion of any Section of the Works before Completion of the Whole, the Whole of the Work shall be completed in accordance with Schedule – M of Volume – I (Commercial) of the Tender Document, within the Time stated in the Contract calculated from the last day of the Period specified in the said Schedule as that within the Works are to be completed or such extended time as may be allowed under Sub Clause 3.29.2 thereof.

Sr. No.	DESCRIPTION OF WORK	TIME IN MONTHS FROM THE DETAILED AWARD OF WORK	
		COMMENCE	COMPLETE
1	Detailed / Check Survey	½	1½
2	Submission of Final Tower Spotting Data by Contractor	1	1½
3	Approval of Final Tower Spotting Data by Purchaser	1½	2
4	Stub Setting & Foundation Work	2½	4
5	Tower Erection	3	5
6	Stringing & Sagging	3½	5
7	Revetments	3	5
8	Earthing of Towers	4	6
9	Testing & Commissioning	6	7

The Firm shall supply the SAG TENSION CHARTS and SAG TEMPLATE alongwith Tower Spotting Data as per Clause No. 1.9.7.3 of Technical Specification, Volume – II of the Tender Document immediately after the placement of Detailed Award. The exact requirement of Towers shall be worked out by the Firm after the Check Survey and shall submit Final Tower Schedule for the approval of the Purchaser in pursuant to Clause 2.3 of Part – V, Volume – II of Technical Specification.

The Firm shall carry out the Weight Span Calculations and Tower Location Schedules of the Lines for working out the Design / Requirement of SPECIAL STRUCTURES / GANTRIES / FILL BODY EXTENSIONS / HILL SIDE EXTENSIONS etc.

3. LIQUIDATED DAMAGES

The Time and Dates Stipulated in the Tender for the Delivery of the Equipment / Material and Completion of the Work entrusted to the Contractor shall be deemed to be the essence of Contract. Timely submission of Drawings and Data as well as timely delivery of Embedded Parts of Equipment /

Material / Erection Work required for maintaining Scheduled Progress of the Works at Site is also of equal importance. Should the Contractor fail or neglect to complete the separate Portion of Works identified below or to complete the Whole of the Works within the Periods and Dates specified under the Contract, the Contractor shall pay to the Purchaser as fixed and agreed Liquidated Damages and not as penalty the sums shown below for every week (or part thereof) @ ½ % per week in Indian Rupees on the amount payable to the Contractor under the Contract subject to a maximum of 10 % of the each Item of Work.

Sr. No.	DESCRIPTION OF WORK	TIME OF COMPLETION* IN MONTHS FROM THE DATE OF AWARD OF WORK	APPLICABLE AMOUNT OF L. D. AFTER COMPLETION PERIOD
CONSTRUCTION ACTIVITY			
1.	Detailed Survey / Check Survey	1½	½ % per Week
2.	Stub Setting and Foundation Work	4	½ % per Week
3.	Tower Erection	5	½ % per Week
4.	Stringing and Sagging	5	½ % per Week
5.	Revetments	5	½ % per Week
6.	Earthing of Towers	6	½ % per Week
7.	Testing and Commissioning	7	½ % per Week

*: Time Schedule shall be guaranteed by the Bidders as per Erection Schedule provided in Schedule of Engineering (Schedule - M) of Volume – I (Commercial) and shall be applicable as agreed for Successful Bidder. In case Whole the Work is delayed, the Maximum Stipulated Liquidated Damages shall not exceed 10 % of the Total Contract Price. The Supply of Material shall be so arranged that there is no mismatch between Procurement and Erection of Material and in a manner approved by the Purchaser. The Liquidated Damages shall be applicable only on left out activity.

Provided that in any case where under Sub Clause 4.13.1 of Volume – I (Commercial), the Contractor makes itself liable to pay the Maximum Stipulated Damages and fails to execute the Contract, the Purchaser shall have the power to adopt any or all the following recourses as may be deemed fit:

- Purchaser may rescind the Contract by giving one month notice of recession, and may take steps to forfeit the Contractor's Security to fulfil the Contract as a part of compensation for the losses caused by the Contractor to the Purchaser.
- Purchaser may arrange to have the remaining Supply of Material / Execution of Work completed from other Sources, at the Contractor's risk and cost, and such Supply shall in no

[Signature]

6

way be deemed to affect the Contractor's Guarantee for the proper performance of the Equipment / Material supplied by him.

- c) Purchaser may take steps to recover all losses caused to him by the non - execution of the Contract.
- d) If on any occasion, the Purchaser abstains from exercising the power given to him by these Clauses such abstention shall not prevent him from exercising such power on subsequent occasion, and if the Contractor again makes default, it shall be lawful for the Purchaser to re - impose the Damages as stipulated in these Clauses.

An unexcused delay by the Contractor in the performance of the Contractual obligations shall render the Contractor to any or all the following: -

- a) Sanctions,
- b) Forfeiture of its Performance Security;
- c) Imposition of Liquidated Damages; and / or
- d) Termination of the Contract at the risk and cost of the Contractor.

4. STAGE PENALTY:-

To ensure that the Contractor starts the Work immediately after signing of the Contract, the following Minimum Progress of Work, both in respect of Supply of Equipment against Supply Contract and Physical Progress of Civil and Erection Activities at Site against Erection Contract separately, will have to be achieved by the Contractor in terms of Financial Values:-

PERIOD STARTING FROM SIGNING THE CONTRACT	FINANCIAL ACHIEVEMENT INCLUDING SUPPLY OF EQUIPMENT
Within 1 (One) months	10 % of the Contract Value
Within 3 (Three) months	40 % of the Contract Value
Within 5 (Five) months	70 % of the Contract Value

The Contractor shall ensure the Completion of Supply and Erection Activities separately for the above values, failing which the Stage Penalty @ ½ % per week or part thereof for the amount equal to Short Fall in Progress achieved will be levied for the period starting from the Due Date of Achievement of above targets.

The Stage Penalty shall be calculated separately for Supply Contract and the Contract for Erection and Civil Works. The Stage Penalty shall be calculated in number of days of shortfall.

The Achievement of Target will be the Date on which the Material Receipt or Erection Activity is completed by the Contractor at Site as indicated on the Bill / Invoice by the Engineer.

bsing

However, the Total Amount of Stage Penalty plus Liquidated Damages leviable for non completion of Transmission Line in time will not exceed 15 % of the Contract Value of the Transmission Line not commissioned in time in any case.

The Stage Penalty levied shall be reviewed on completion of the Work to the extent that where the **Work as a Whole** is completed within the stipulated Completion Period or the Total Delay in Commissioning of the Transmission Line is less than 2 (Two) Weeks, **no Stage Penalty shall be chargeable** and the Stage Penalty already charged for the delay in completion of Individual Stage, if any shall be refundable to the Contractor through the Bill payable on completion of the Work.

The Stages of the Work will be identified and defined as per approved PERT Chart. The Phasing of Execution of the Turnkey Project will be formulated in a way that appropriate linkage of expenditure would be made not only with Supply but also with the Physical Activities as Site.

The Contractor shall provide for proper checks and balances to ensure timely completion of the Turnkey Contract.

5. INCENTIVE:

As the Work is of very urgent nature and its timely commissioning is of utmost importance to evacuate the Power from Palchan Sub Station. Advanced Commissioning of this Transmission Line will be appreciated and an Incentive @ 0.25 % of the Contracted Amount per Week counted backward from the Contracted Completion Date shall be paid to the Contractor. It is clarified that Part of Week shall not be counted for any Incentive.

6. CERTIFICATES OF PAYMENTS:

The Contractor shall submit an Application for Interim Payment in quadruplicate to the Engineer at the end of each month in a form approved by the Engineer. The Application shall include the following Items, as applicable, which shall be taken in to account in the sequence listed:-

- a) The Estimated Contract Value in Indian Rupees of the Permanent Works executed up to the end of the month in question, obtained by applying the Base Unit Rates and Prices in the Schedule - C - 5 of Part - V, Volume - II to the Quantities measured by the Engineer pursuant to Clause 3.38 of Section - III OF Volume - I.
- b) The Estimated Contract Value of the Permanent Works obtained as above, executed up to the end of the previous month.
- c) The Estimated Contract Value at Base Unit Rates and Prices, expressed in Indian Rupees of the Permanent Works for the month in question obtained by deducting(b) from (a).
- d) Any Amount reflecting any changes in Cost and Legislation pursuant to Clause 3.46 of Section - III to Volume - I.

Signature

- 8
- e) Any amount to be deducted on account of the Advance Loan Repayment under the provisions set forth in Sub Clause 4.15.4 and
 - f) Any other Sum to which the Contractor may be entitled under the Contract.

The other Terms and Conditions for Payments shall be governed as per Clause 4.15 of Special Conditions of the Contract, Volume – I and Clause 1.12 of Part – V, Volume – II of Tender Document.

7. SUB LETTING:

The Contractor shall not Sub - Let the Whole of the Works. Except where otherwise provided by the Contract, the Contractor shall not Sub - Let any Part of the Works without the prior written consent of the Engineer, which shall not be unreasonably withheld, and such consent, if given, shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any Sub Contractor, his Agents, Servants or Workmen as fully as if they were the acts, defaults or neglects of the Contractor, his Agents, Servants or Workmen, provided always that the provision of Labour on a piece Work basis shall not be deemed to be a Sub - Letting under this Clause

8. FOUNDATIONS / REVETMENT:

The Foundation Work of Tower Footing i.e. Excavation, Stub Setting, Concreting, Quality of Material, Curing, Protection of Tower Footing and Earthing of Towers shall be carried out in accordance with Section – III, Volume – II of Tender Document.

9. INSURANCE:

The Insurance of Material at Site and other Services shall be governed as per Clause No.: 3.54 of Commercial Conditions and other relevant Clauses of Volume – I (Commercial).

10. EXECUTION OF CONTRACT:

The Contractor shall have to execute a Contract Agreement on the Terms and Conditions envisaged in Tender Document and the Detailed Purchase Order or as has been mutually agreed to after negotiations, within 30 calendar days from the Detailed Award of Work. It is a legitimate obligation of the Contractor to execute and to Stamp the Contract, in accordance with the Indian Stamp Act and to supply six copies of Contract Drawings, Technical Particulars as finally approved by the Purchaser and other Literature and Instruction Books regarding Handling, Use and Maintenance of Equipments / Material. The Cost of all these and such other Items has been deemed to have been included in the Tendered Prices and the Contractor will not be entitled to any extra payment on these accounts. However, non - execution of the Contract Agreement by the Contractor shall not absolve him of the responsibility of the faithful execution of the Contract

11. WARRANTY / GUARANTEE:

Against any defect in Material / Services or Faulty Workmanship, the Contractor shall Guarantee the satisfactory performance of the Transmission Line for a period of eighteen months from the Date of

Actual Taking Over or Twelve months after its Commissioning whichever expires earlier. The other Terms of warranty / Guarantee shall be as per Clause No.: 3.56 of Commercial Conditions, Volume – I.

12. CONTRACT PERFORMANCE SECURITY:

- i. Within 30 days after the Contractor's receipt of Notification of Detailed Award of the Contract, the Contractor shall furnish Contract Performance Security to the Purchaser. The Performance Security shall be for 10 % of the Contract Value considering both the Contracts together (i.e. Supply Contract and Erection Contract) and should be valid upto the end of Warranty Period as per Contract.
- ii. The proceeds of the Contract Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract.
- iii. The Contract Performance Security shall be denominated in the currency of the Contract and shall be in the form of a Bank Guarantee issued by a Nationalised / Scheduled Bank located in India.
- iv. The Contract Performance Security will be discharged by the Purchaser and returned to the Contractor promptly following the completion of the Contractor's Performance Obligations, including any Warranty obligations under the Contract. No interest will be paid on the Contract Performance Security.

13. SETTLEMENT OF DISPUTES BY ARBITRATION:

Except where otherwise provided in the Contract, all Questions and Disputes arising out of or relating to the Contract shall be referred to the Sole Arbitrator i.e. Managing Director, HPPTCL or any other person appointed by him. The Settlement of Disputes shall be governed as per Clause No.: 3.44 of commercial conditions, Volume – I.

14. FORCE MAJEURE:

The Contractor shall not be liable for any loss or damage due to delay in Manufacture or Delivery resulting from any causes beyond the Contractor's reasonable control, including but not limited to compliance with Regulations, Orders or Instructions of any Federal State or Municipal Government or Agency thereof, Acts of God, Acts of Omission on the part of the Purchaser, Acts of Civil and Military Authorities, Fires, Strikes, Factory Shut Downs or Altercations, Embargoes, Wars and Riots. The Force Majeure Conditions will be subject to production of satisfactory Documentary Proof.

Delay in Transportation or inability to obtain Materials due to import or non - availability of Raw Material and Power Cuts shall not be considered as Force Majeure.

Signature

15. VARIATIONS / OMISSIONS:

The Purchaser shall make any variation in Quantity of Works or any part thereof that may in his opinion, is necessary, in pursuant to Clause No.: 3.35 of the Commercial Conditions of Tender Document, if required at the time of actual execution of work and to increase / decrease the quantity of Civil Works as per actual measurement at Site during the Execution of Contract.

16. TERMINATION FOR CONVENIENCE:

The Purchaser shall be entitled to terminate this Contract, in Whole or in Part, at any time for the Purchaser's convenience after giving thirty days prior notice to the Contractor, with a copy to the Engineer.

In the event of such Termination, the Contractor shall:

- a) Proceed as provided in Sub Clause 3.42.7 of Section - III to Commercial Conditions, Volume - I; and
- b) Be paid by the Purchaser as provided in Sub Clause 3.42.8 of Commercial Conditions, Volume - I.

The Termination for default shall be governed as per Clause 3.42 of commercial Conditions, Volume - I.

17. OTHER TERMS AND CONDITIONS:

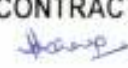
The Contract Award shall be further subject to other Terms and conditions as stipulated in Commercial Conditions (Volume - I) and Technical Conditions (Volume - II) of the Tender Document No.: DGMC / Palchan - AD Hydro / 1 / 2009.

Please acknowledge the receipt.

ENCLOSURES:

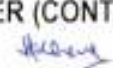
1. Schedule of Quantities and Prices for Erection - Annexure - 2

Yours Faithfully,


o/c GENERAL MANAGER (CONTRACTS)


Copy forwarded to the following alongwith Enclosures for information and necessary action: -

1. Dy. General Manager (Contracts), HPPTCL, Barowalias House, Khalini, Shimla - 171002
2. Dy. General Manager (Projects), HPPTCL, Barowalias House, Khalini, Shimla - 171002
3. Sr. Manager, HPPTCL, Sarabai, Bhunter, District - Kullu - 175125 (H. P.) - Two Copies.
4. Sr. Accounts Officer, HPPTCL, Barowalias House, Khalini, Shimla - 171002


o/c GENERAL MANAGER (CONTRACTS)


ANNEXURE - 2

SCHEDULE OF QUANTITIES AND PRICES FOR ERECTION OF 220 kV D / C TRANSMISSION LINE FROM 220 / 33 kV SUBSTATION AT PALCHAN TO 220 kV A. D. HYDRO SWITCHYARD

Sr. No.	DESCRIPTION	UNIT	TENTATIVE TOTAL QUANTITY	GUARANTEED QUANTITY PER TOWER	UNIT PRICE (Rs.)	TOTAL AMOUNT (Rs.)
1	2	3	4	5	6	7

1 SURVEY WORK

- Detailed Survey including Pegging of Tower Centres, Route Marking, Profile Plotting, Tower Spotting etc.

km	12	15,702.56	188,431
----	----	-----------	---------
- Check Survey including Pegging of Tower Centres, Route Marking, Profile Plotting, Tower Spotting etc.

km	12	6,281.42	75,377
----	----	----------	--------

FOUNDATION WORK

2 STUB SETTING INCLUDING FORM WORK

- Tower Type 'W'

No.	0	3,140.71	0
-----	---	----------	---
- Tower Type 'X'

No.	19	4,710.57	89,501
-----	----	----------	--------
- Tower Type 'Y'

No.	14	5,495.51	76,937
-----	----	----------	--------
- Tower Type 'Z'

No.	12	6,281.42	75,377
-----	----	----------	--------
- Special Towers

No.	2	7,066.35	14,133
-----	---	----------	--------

3 TOWER TYPE - 'W, +3, +6'

a) NORMAL DRY; (Nos. of Towers)

i)	Excavation	cu. m.	0	86.226	126.10	0
ii)	Concreting M 10	cu. m.	0	1.728	6,576.62	0
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	0	11.965	8,259.88	0
v)	Reinforcement	MT	0	1.189	54,958.96	0

b) WET; (Nos. of Towers)

i)	Excavation	cu. m.	0	175.131	157.38	0
ii)	Concreting M 10	cu. m.	0	2.87	6,576.62	0
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	0	21.39	8,259.88	0
v)	Reinforcement	MT	0	1.687	54,958.96	0

c) SOFT / FISSURED ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	0	88.668	313.78	0
ii)	Concreting M 10	cu. m.	0	1.832	6,576.62	0
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	0	13.341	8,259.88	0
v)	Reinforcement	MT	0	1.059	54,958.96	0

d) HARD ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	0	10.569	7,066.35	0
ii)	Concreting M 10	cu. m.	0		6,576.62	0
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	0	5.923	8,259.88	0
v)	Reinforcement	MT	0	0.393	54,958.96	0

e) NON COHESIVE; (Nos. of Towers)

i)	Excavation	cu. m.	0	165,476	157.38	0
ii)	Concreting M 10	cu. m.	0	2,712	6,576.62	0
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	0	17,398	8,259.88	0
v)	Reinforcement	MT	0	2,029	54,958.96	0

4 TOWER TYPE - 'X', +3, +6'

a) NORMAL DRY; (Nos. of Towers)

i)	Excavation	cu. m.	574,842	95,807	126.10	72,488
ii)	Concreting M 10	cu. m.	11,526	1,921	6,576.62	75,802
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	79,764	13,294	8,259.88	658,841
v)	Reinforcement	MT	7,926	1,321	54,958.96	435,605

b) WET; (Nos. of Towers)

i)	Excavation	cu. m.	218,914	218,914	157.38	34,453
ii)	Concreting M 10	cu. m.	3,588	3,588	6,576.62	23,597
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	26,738	26,738	8,259.88	220,853
v)	Reinforcement	MT	2,109	2,109	54,958.96	115,908

c) SOFT / FISSURED ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	98,521	98,521	313.78	30,914
ii)	Concreting M 10	cu. m.	2,036	2,036	6,576.62	13,390
iii)	Concreting M 15	cu. m.	0		7,665.56	0
iv)	Concreting M 20	cu. m.	14,824	14,824	8,259.88	122,444
v)	Reinforcement	MT	1,176	1,176	54,958.96	64,632

d) **HARD ROCK; (Nos. of Towers)**

i)	Excavation	cu. m.	0			
ii)	Concreting M 10	cu. m.	0	10.569	7,966.35	0
iii)	Concreting M 15	cu. m.	0		6,576.62	0
iv)	Concreting M 20	cu. m.	0		7,665.56	0
v)	Reinforcement	MT	0	5.923	8,259.88	0
				0.393	54,958.96	0

e) **NON COHESIVE; (Nos. of Towers)**

i)	Excavation	cu. m.	11	2022.482	157.38	318,298
ii)	Concreting M 10	cu. m.	33.143	183.862	6,576.62	217,969
iii)	Concreting M 15	cu. m.	0	3.013	7,665.56	0
iv)	Concreting M 20	cu. m.	212.652	19.332	8,259.88	1,756,480
v)	Reinforcement	MT	24.794	2.254	54,958.96	1,362,652

5 **TOWER TYPE - 'Y, +3, +6'**

a) **NORMAL DRY; (Nos. of Towers)**

i)	Excavation	cu. m.	4	428.492	126.10	54,033
ii)	Concreting M 10	cu. m.	8.5	107.123	6,576.62	55,901
iii)	Concreting M 15	cu. m.	0	2.125	7,665.56	0
iv)	Concreting M 20	cu. m.	59.432	14.858	8,259.88	490,901
v)	Reinforcement	MT	6.42	1.605	54,958.96	352,837

b) **WET; (Nos. of Towers)**

i)	Excavation	cu. m.	1	265.489	157.38	41,783
ii)	Concreting M 10	cu. m.	4.347	265.489	6,576.62	28,589
iii)	Concreting M 15	cu. m.	0	4.347	7,665.56	0
iv)	Concreting M 20	cu. m.	31.315	31.315	8,259.88	258,658
v)	Reinforcement	MT	2.947	2.947	54,958.96	161,964

c) SOFT / FISSURED ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	123.74	123.74	313.78	38,827
ii)	Concreting M 10	cu. m.	2.496	2.496	6,576.62	16,415
iii)	Concreting M 15	cu. m.	0	0	7,665.56	0
iv)	Concreting M 20	cu. m.	17.71	17.71	8,259.88	146,282
v)	Reinforcement	MT	1.607	1.607	54,958.96	88,319

d) HARD ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	0	0	7,066.35	0
ii)	Concreting M 10	cu. m.	0	0	6,576.62	0
iii)	Concreting M 15	cu. m.	0	0	7,665.56	0
iv)	Concreting M 20	cu. m.	0	0	8,259.88	0
v)	Reinforcement	MT	0	0	54,958.96	0

e) NON COHESIVE; (Nos. of Towers)

i)	Excavation	cu. m.	1724.816	215.602	157.38	271,452
ii)	Concreting M 10	cu. m.	28.248	3.531	6,576.62	185,776
iii)	Concreting M 15	cu. m.	0	0	7,665.56	0
iv)	Concreting M 20	cu. m.	186.488	23.311	8,259.88	1,540,369
v)	Reinforcement	MT	20.216	2.527	54,958.96	1,111,050

6 TOWER TYPE - 'Z, +3, +6'

a) NORMAL DRY; (Nos. of Towers)

i)	Excavation	cu. m.	371.22	123.74	126.10	46,811
ii)	Concreting M 10	cu. m.	7.521	2.507	6,576.62	49,463
iii)	Concreting M 15	cu. m.	0	0	7,665.56	0
iv)	Concreting M 20	cu. m.	54.924	18.308	8,259.88	453,666
v)	Reinforcement	MT	5.475	1.825	54,958.96	300,900

b) WET; (Nos. of Towers)

i)	Excavation	cu. m.	305.981	1	305.981	157.38	48,155
ii)	Concreting M 10	cu. m.	5.016		5.016	6,576.62	32,988
iii)	Concreting M 15	cu. m.	0			7,665.56	0
iv)	Concreting M 20	cu. m.	36.552		36.552	8,259.88	301,915
v)	Reinforcement	MT	3.508		3.508	54,958.96	192,796

c) SOFT / FISSURED ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	144.963	1	144.963	313.78	45,486
ii)	Concreting M 10	cu. m.	2.944		2.944	6,576.62	19,362
iii)	Concreting M 15	cu. m.	0			7,665.56	0
iv)	Concreting M 20	cu. m.	21.62		21.62	8,259.88	178,579
v)	Reinforcement	MT	1.985		1.985	54,958.96	109,094

d) HARD ROCK; (Nos. of Towers)

i)	Excavation	cu. m.	0		10.569	7,066.35	0
ii)	Concreting M 10	cu. m.	0			6,576.62	0
iii)	Concreting M 15	cu. m.	0			7,665.56	0
iv)	Concreting M 20	cu. m.	0		9.631	8,259.88	0
v)	Reinforcement	MT	0		0.661	54,958.96	0

e) NON COHESIVE; (Nos. of Towers)

i)	Excavation	cu. m.	1732.444	7	247.492	157.38	272,652
ii)	Concreting M 10	cu. m.	28.399		4.057	6,576.62	186,769
iii)	Concreting M 15	cu. m.	0			7,665.56	0
iv)	Concreting M 20	cu. m.	208.817		29.831	8,259.88	1,724,803
v)	Reinforcement	MT	20.699		2.957	54,958.96	1,137,596

7	Dewatering of Pits during Concreting					
	i)	Manual (Men Days)	Towers	3		
	ii)	Mechanical Pump	MD	1	235.58	235.58
	iii)	Power Driven Pump	Hrs.	1	313.78	313.78
			Hrs.	1	235.58	235.58
8	ERECTION of all Type of Towers i/c Special Tower, Super Structures a/w Body Extension, Leg Extension of all Towers including fixing of of Danger Plate, Number Plate, Circuit Plate, Phase Plates, Birdguard, Anti - Climbing Devices etc complete in all respect		MT	627.61	7,301.93	4,582,764
9	MOUNTING of Insulator String for Three Number ACSR 'ZEBRA' Conductor including Laying, Jointing, Tensioning Stringing, Sagging and Clamping of Conductor, Fixing of Vibration Dampers, Arching Horns etc complete in all respect		km	12	62,810.24	753,723
10	STRINGING of One Number OPGW including Laying, Jointing, Tensioning, Sagging, Clamping, Fixing of Vibration Dampers, Earthbond etc complete in all respect		km	12	39,256.40	471,077
11	EARTHING OF TOWERS					
a)	Pipe Type Earthing complete including Excavation and Backfilling Work			37	1,569.87	58,085
b)	15 metres Counterpoise Earthing complete with Excavation and Backfilling Work			4	1,569.87	6,279
c)	30 metres Counterpoise Earthing complete with Excavation and Backfilling Work			6	3,140.71	18,844

12	BENCHING of Tower Footings in all kind of Soil	cu. m.	25,300	196.48	4,970,944
13	RIVETMENTS				
	BREAST / RETAINING WALLS				
i)	Excavation for Foundations in all kind of Soil	cu. m.	19,035	235.58	4,484,265
ii)	Coping with M 15 Concrete	cu. m.	20.5	5,938.31	121,735
iii)	Rubble Masonary Work including Cement Mortar (1 : 5) Work complete	cu. m.	2,590	1,955.00	5,064,359
iv)	Excavation and Transportation of Soil from suitable Place and Back filling, Levelling of the Volume enclosed by Revetment Walls	cu. m.	1,905	313.78	597,751
v)	Providing of Stone Packings at Weep Holes	cu. m.	2,190	1,569.87	3,438,015
14	PAINTING OF TOWERS (including Paint) having Height more than 45 m or wherever required with Orange and White Strips (Minimum 3 Bands)	Towers	35	1,569.87	54,945
15	PROVIDING AND FIXING of Coloured Globules on OPGW of 50 cm diameter In compliance to Clause No. 4.13 of Part - V, Volume - II of the Specifications	Nos.	39	8,636.21	336,812
16	TESTING AND COMMISSIONING CHARGES	km	12	15,702.56	188,431
TOTAL					41,137,088

NOTE:

- 1 Excavation for Foundation / Benching includes Backfilling with Excavated / Borrowed Soil and provision of Shoring Shuttering, Dewatering (wherever required) etc.

- 2 Rock Anchoring for Hard Rock Foundation includes Drilling of Holes in Rock, Providing and Fixing Reinforcement Dowel Bars, Bottom Plugging with Contractor's Material etc complete as per Approved Drawings / Specifications.
- 3 Concreting (M: 10 / M: 15 M: 20) includes Providing and Laying Cement Concrete of M: 10 / M: 15 / M: 20 Grade with Single Sized Aggregate of Nominal size 40 mm / 20 mm including Preparing Surfaces, Shuttering, Mixing, Placing, Tamping, Curing and Finishing with leads and lifts etc and including Cost of Cement, Sand, Aggregate and Reinforcement.
- 4 Reinforcement includes Providing, Cutting, Bending, Binding, Fixing and Placing of Steel Reinforcement as per Drawings and Specifications
- 5 Quantities mentioned under heading "Tentative Total Quantity" show the Quantum of Work for Total Number of Tower Locations (and not Quantum of Work per Tower). The Unit Rates shall be considered for Payment Purpose after Award of Contract.



HP POWER TRANSMISSION CORPORATION LIMITED

(A State Government Undertaking)

BAROWALIAS HOUSE, KHALINI, SHIMLA-2

Ph:-0177-2626272, FAX:-2620227

NO: HPPTCL/ 220 kV LILO- Fozal/2012- 13- 773 ~~780~~

Dated:- 8-5-12

To

M/S Hythro Power Corporation Limited,

TECPRO HOUSE , Plot No.: 78 ,Sector- 34,

National Highway – 8, Gurgaon (Haryana).

Fax: 0124-4814141.

Subject :- DETAILED AWARD OF CONTRACT FOR SUPPLY CONTRACT against Tender No. DGMC/Palchan-AD Hydro/1/2009 for Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis - **AMMENDMENT THEREOF.**

Reference :- This office reference to the following :-

1. Contract Agreement For Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis, signed on dated: 11th March'2010.
2. This Office Letter NO: HPPTCL/ Hythro Power/Palchan- AD Hydro/2011-12- 6114 dated: 03-12-2011.
3. Your Letter No. HPCL/HPPTCL/ 122 – S / 11-12 / 4212 dated: 05-12-2011.
4. This Office Letter NO: HPPTCL/ Hythro Power/Palchan- AD Hydro/2011-12- 6393 dated: 19-12-2011.
5. Your Letter No. HPCL/HPPTCL/ 122 – S / 11-12 / 3512 dated: 31-12-2011.
6. This Office Letter NO: HPPTCL/ Fozal – 220 kV D/C LILO/2011-12- 6656 - 6662 dated : 31-12-2011.
7. This Office Letter NO: HPPTCL/ Fozal – 220 kV D/C LILO/2011-12- 6869 dated: 11-01-2011.

Received
March
9/5/12

8. Your Letter No. HPCL/HPPTCL/ 122 – S / 11-12 / 3608 dated: 07-01-2012.

Dear Sirs,

With reference to above , I have been directed to issue following Ammendments in the Contract Agreement Executed on dated: 11-03-2010 for Detailed /Check Survey, Optimisation, Design, Engineering Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning of 220 kV D/C Transmission line from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard on Turn Key Basis :-

AMMENDMENTS

Sr. No.	DESCRIPTION	AS PER AWARD	AMENDMENTS
1.	Para No.-2 of Award NO: HPPTCL / PALCHAN – A.D.HYDRO / 2009-3191-95 DATED: 27-01-2010	The Scope of the "SUPPLY CONTRACT" includes Design, Engineering, Fabrication, Manufacture, Galvanising and Supply of all Types of Tested Towers including Nuts and Bolts, Hangers, D-Shackle etc. Tower Accessories ZEBRA ACSR Conductor, OPGW, Hardware Fittings, Conductor and OPGW Accessories and Line Material etc. on F.O.R Site/ Destination basis, Transportation, Storage, Handling of all the Material required for Construction of 220 kV S/C Transmission Line on 220 kV D/C Towers from 220/33 kV Sub-Station at Palchan to 220 kV A.D. Hydro Switchyard (12 Km) in Kullu District against Tender No. DGMC/Palchan-AD Hydro/1/2009 , on Negotiated Rates as per SCHEDULE OF QUANTITIES AND PRICES FOR	The Scope of the "SUPPLY CONTRACT" includes Design, Engineering, Fabrication, Manufacture, Galvanising and Supply of all Types of Tested Towers including Nuts and Bolts, Hangers, D-Shackle etc. Tower Accessories ZEBRA ACSR Conductor, OPGW, Hardware Fittings, Conductor and OPGW Accessories and Line Material etc. on F.O.R Site/ Destination basis, Transportation, Storage, Handling of all the Material required for Construction of proposed 220 kV D/C Line from proposed 220 kV Sub- station at Phojal to Patlikuhal by LILO of one circuit of 220 kV D/C Line from AD Hydro Switchyard Prini to Nalagarh on Turn Key Basis (6.645 Km) in Kullu District against Tender No. DGMC/Palchan-AD Hydro/1/2009 , on Negotiated Rates as

		SUPPLY – ANNEXURE – I and Terms and Conditions of Tender Document.	per SCHEDULE OF QUANTITIES AND PRICES FOR SUPPLY – ANNEXURE – I and Terms and Conditions of Tender Document.
2.	No. of Towers	X= 19	X= 10.
		Y= 14	Y= 8.
		Z= 12	Z= 6
3.	Completion Period	4 Months from Date of Award	1 year from the Date of fresh Award or 4 months after handing over of the Land by HPPTCL free from encumbrance whichever is later
4.	Tower Material Supplier	Approved Vendor of HPPTCL	M/S Hythro Power Corporation Limited's Works at Bhiwadi

The Main Abstract Of Cost has been Revised as under:-

Sr. No.	DESCRIPTION	AMOUNT (Rs.)		REMARKS
		Ex-WORKS	F& I CHARGES	
1.	Tower & Tower <i>accessories</i>	2,66,05,123	17,30,390	As per Item No. A (1 to 12) of Annexure-1.
2.	Conductor & OPGW	1,09,46,337	1,82,695	As per Item No. A (14 & 15) of Annexure-1.
3.	Disc Insulators	49,08,533	3,33,203	As per Item No. A (16 to 17) of Annexure-1.
4.	Hardware Fitting & Accessories.	24,45,676	59,463	As per Item No. A (18 to 31) of Annexure-1.
	TOTAL	4,49,05,669	23,05,229	

TOTAL OF SUPPLY PORTION = Rs. 4, 49, 05, 669 + Rs.23, 05, 229 = Rs.4, 72, 10, 898 /- only.

Rs. FOUR CRORE FORTY NINE LAC FIVE THOUSAND SIX HUNDRED SIXTY NINE ONLY.

The Total Amount of Rupees Four Crore Forty Nine Lac Five Thousand Six Hundred Sixty Nine only is inclusive of Freight & Insurance Charges, Excise Duty, C.S.T. / L.S.T. and any other Tax / Levy and shall not be paid extra. However, Unit Packing, Forwarding, Loading and Unloading Charges @ Rs. 4.89 per Unit shall be payable Extra on Disc Insulators only.

Price of any other Extra Item, If required to complete the Job for commissioning of OPGW has been included in the above Prices of OPGW Accessories.

Quantities mentioned are Tentative and Actual Quantities shall be worked out after Check Survey to be carried out by the Contractor and after Detailed Engineering and Finalisation of Tower Location Chart. The Exact Quantities executed as per actual shall be paid to the Contractor.

All other Terms and Conditions of the Contract Agreement shall remain unchanged.

The Revised Schedule Of Requirement and Price is annexed as Annexure-I.

Please acknowledge the receipt and acceptance within 15 days from the date of issue of this Amendment.

Yours faithfully,



Dy. General Manager (Contracts)

Copy to the following for information and necessary action:-

1. P.S. to the Director (C&P), Barowalias House, Khalini, Shimla-2.
2. P.S. to the Director (Projects), Barowalias House, Khalini, Shimla-2.
3. P.S. to the General Manager (C & D), Barowalias House, Khalini, Shimla-2
4. The DGM & Head, Trans. Design, HPPTCL, Anu, Hamirpur.
5. The DGM (Projects) HPPTCL, Barowalias House, Khalini, Shimla-2.
6. The DGM (Finance), Barowalias House, Khalini, Shimla-2.
7. The Sr. Manager (Projects), Sarabhai, Kullu.



Dy. General Manager (Contracts)

SCHEDULE OF REQUIREMENT AND PRICES

Sr.No.	Description.	Unit	Quantity	Ex-Works Price in Rupees		Freight & Insurance	
				Unit	Total	Unit	Total
A	TOWER AND TOWER ACCESSORIES						
1	Design, Fabrication and Supply of all Type of 220 kV D/C Galvanised Steel Towers, Extensions including Stubs, Stub Setting Templates. (For Quantities Guaranteed in Schedule- GW)	MT Nos.	253.024	63,185.60	1,59,87,473	5,131.88	12,98,488.81
2	Design Fabrication and Supply of Special Structures / Towers (Total Tentative Quantity.	MT Nos.	21.8362	63,185.60	13,79,721	5,131.88	1,12,059.73
3	Nuts, Bolts & Washers for item, No.1 above.	MT	35.158	82,141.28	28,87,923	1,105.50	1,44,341.17
4	Nuts, Bolts & Washers for item, No.2 above (Total Tentative Quantity.	MT	0.926	82,141.28	76,062.83	4,105.50	3,801.69
5	Tower Testing Charges with 6 meters Full Body Extension upto Destruction Tests including the Cost of Material after allowing Rebate for Scrap value Steel of Destroyed Tower.						
	i) Tower Type 'W'	Set	1	8,53,944.00	8,53,944.00	16,422.00	16,422.00
	ii) Tower Type 'X'	Set	1	14,57,452.50	14,57,452.50	34,896.75	34,896.75
	iii) Tower Type 'Y'	Set	1	16,42,200.00	16,42,200.00	41,055.00	41,055.00
	iv) Tower Type 'Z'	Set	1	20,11,695.00	20,11,695.00	53,371.50	53,371.50
6	Number Plates with Bolts , Nuts and Washers.	Set	47	228.74	10,750.78	20.53	964.91
7	Danger Plates with Bolts , Nuts and Washers.	Set	47	228.74	10,750.78	20.53	964.91
8	Phase Plates with Bolts , Nuts and Washers (Set of 2 Plates.	Set	47	172.04	8,085.88	20.53	964.91

9	Circuit Plates with Bolts, Nuts and Washers (Set of Plates.	set	47	343.1	1,125.70	20.53	964.91
10	Anti-Climbing Devices for 220 kV, D/C Towers including Bolts, Nuts and Washers for all Types of Towers including Barbed Wire.	Set	47	2,518.04	1,18,347.88	205.28	9,648.16
11	Bird Guards for Tangent Towers.	Set	47	1,030.29	48,423.63	154.45	7,259.15
12	Earthing Material for Towers i) Pipe Type Earthing Material complete with necessary Bolts, Nuts and Washers. ii) Counterpoise Earthing Set complete with necessary Bolts, Nuts and Washers.	Set	40	1,831.84	73,273.60	102.64	4,105.60
	15 meters Long.	set	4	2,289.31	9,157.24	154.45	617.8
	30 meters Long.	set	3	4,578.61	13,735.83	154.45	463.35
13	TOTAL OF TOWER & TOWER ACCESSORIES				2,66,05,122.78		17,30,390.35
14	ACSR 'ZEBRA' CONDUCTOR	km.	38	2,00,541.95	76,20,594.10	4,105.50	1,56,009.00
15	SINGLE MODE 12 FIBRE OPTICAL GROUND WIRE (OPGW) alongwith Termination Equipment for both ENDS	km	13	2,55,826.41	33,25,743.33	2,052.75	26,685.75
16	DISC INSULATORS suitable for SNOW BOUND AREA with Minimum Temperature of 20-90 kN	Nos.	2470	493.64	12,19,290.80	31.28	77,261.60
17	160 kN	Nos.	4940	746.81	36,89,241.40	51.81	2,55,941.40
	HARDWARE FITTINGS						
18	Single Suspension Hardware Fitting for ACSR 'ZEBRA'	Set	0	1,568.89	0.00	41.06	0.00
19	Double Suspension Hardware Fitting for ACSR 'ZEBRA'	Set	7	3,631.41	25,419.87	82.11	574.77
20	Suspension Hardware Fitting for Pilot String.	Set	155	1,568.89	2,43,177.95	41.06	6,364.30

21	Single Tension Hardware Fitting for ACSR 'ZEBRA' With FAH With AAH	set set	292 32	2,700.83 2,954.01	7,88,642.36 94,528.32	61.58 66.47	17,981.36 2,127.04
22	Double Tension Hardware Fitting for ACSR 'ZEBRA' With FAH With AAH	set set	10 7	5,041.95 5,421.22	50,419.50 37,948.54	123.17 246.33	1,231.70 1,724.31
ACCESSORIES FOR ACSR 'ZEBRA' CONDUCTOR							
23	Mid Span Compression	Nos.	96	756.59	72,632.64	15.64	1,501.44
24	Repair Sleeve	Nos.	96	305.96	29,372.16	4.89	469.44
25	Vibration Dampers	Nos.	423	670.57	2,83,651.11	20.53	8,684.19
26	Performed Armour Rod	Set	28	1,454.52	40,726.56	25.42	711.76
OPGW ACCESSORIES							
27	Jointing Box	Nos.	3	7,510.13	22,530.39	174.00	522.00
28	Vibration Dampers	Nos.	141	804.48	1,13,431.68	18.57	2,618.37
29	Suspension Hardware Fitting for OPGW	Set	2	4,254.08	8,506.16	98.73	197.46
30	Tension Hardware Fitting for OPGW	Set	92	6,779.94	6,23,754.48	157.38	14,478.96
31	Flexible Coper bond.	Nos.	47	232.65	10,934.55	5.87	275.89
TOTAL OF SUPPLY PORTION					4,49,05,669		23,05,229

NOTE

- 1 Unit Packing, Forwarding, Loading and Unloading charges @ 4.89 per Unit shall be payable Extra on Disc Insulators only.
- 2 Excise Duty C.S.T./ L.S.T. and any other Tax/ Levy payable are included in the above Prices.
- 3 Quantities mentioned above are Tentative and Actual Quantities shall be worked out after Check Survey to be carried out by the Contractor and after
- 4 Price of any other Extra Item, if required to complete the job for commissioning of OPGW, has been included in the above Prices of OPGW Accessories.

Dy. General Manager (Contracts)



SCHEDULE-GW
GUARANTEED WEIGHT OF TOWER

S.No.	Description	Tentative Quantity Nos.	Unit Guaranteed Weight	Total Guaranteed Weight
			Fabricated Member (MT)	Fabricated Member (MT) Bolts & Nuts (MT)
1	TOWER TYPE : 'X'(0 degree to 15 degree			
	Basic Body-	10	7.4520	74.5200
	ii) + 0 m Base / 0 m Leg Extn. (1 Leg)	0	0.2070	0.0000
	iii) + 3 m Full Body Extension	0	1.6060	0.0000
	iv) + 6 m Full Body Extension	3	2.6760	8.0280
	v) + 9 m Full Body Extension		0.0000	
	vi) + 1.5 m Leg Extension (1 Leg)	3	0.3050	0.9150
	vii) + 3.0 m Leg Extension (1 Leg)	5	0.4120	2.0600
	viii) + 4.5 m Leg Extension (1 Leg)	5	0.5380	2.6900
	ix) + 6.0 m Leg Extension (1 Leg)	5	0.6730	3.3650
	Stubs for above (Set of 4)	10	0.4170	4.1700
	Stub Setting Template.	1	0.4740	0.4740
2	TOWER TYPE : 'Y'(0 degree to 30 degree			
	Basic Body.	8	8.7730	70.1840
	ii) + 0 m Base / 0 m Leg Extn. (1 Leg)	0	0.2610	0.0000
	iii) + 3 m Full Body Extension	0	1.8720	0.0000
	iv) + 6 m Full Body Extension	0	3.1210	0.0000
	v) + 9 m Full Body Extension	0	0.0000	0.0000
	vi) + 1.5 m Leg Extension (1 Leg)	1	0.3680	0.3680
	vii) + 3.0 m Leg Extension (1 Leg)	1	0.4860	0.4860
	viii) + 4.5 m Leg Extension (1 Leg)	3	0.6430	1.9290
	ix) + 6.0 m Leg Extension (1 Leg)	3	0.7600	2.2800
	Stubs for above (Set of 4)	8	0.4910	3.9280
	Stub Setting Template.	1	0.4950	0.4950

TOWER TYPE : 'Z' (0 degree to 60 degree

i)	Basic Body.	6	10.3590	0.4560	62.1540	2.7360
ii)	+ 0 m Base / 0 m Leg Extn. (1 Leg)	2	0.2850	0.0930	0.0000	0.0000
iii)	+ 3 m Full Body Extension	2	2.1370	0.0770	4.2740	0.1540
iv)	+ 6 m Full Body Extension	0	3.7510	0.1200	0.0000	0.0000
v)	+ 9 m Full Body Extension	0	0.0000	0.0000	0.0000	0.0000
vi)	+ 1.5 m Leg Extension (1 Leg)	1	0.4460	0.1520	0.4460	0.1520
vii)	+ 3.0 m Leg Extension (1 Leg)	1	0.5930	0.0220	0.5930	0.0220
viii)	+ 4.5 m Leg Extension (1 Leg)	3	0.7890	0.0340	2.3670	0.1020
ix)	+ 6.0 m Leg Extension (1 Leg)	3	0.9090	0.0370	2.7270	0.1110
x)	Stubs for above (Set of 4)	6	0.6650	0.0130	3.9900	0.0780
xi)	Stub Setting Template.	1	0.5810	0.0260	0.5810	0.0260
					253.0240	14.9750

NOTE

Quantities mentioned above are Tentative and Actual Quantities shall be worked out after Check Survey to be carried out by the Contractor and after Tower Detailed Engineering and Finalisation of Location Chart. The Exact Quantities executed as per actual shall be paid to the Contractor.

Dy. General Manager (Contracts)



52 1

HIMACHAL PRADESH POWER TRANSMISSION CORPORATION LIMITED
BAROWALIAS HOUSE, KHALINI, SHIMLA – 171002
FAX No.: 0177 – 2626284; PHONE No.: 2626283, 2626272

No.: HPPTCL / HYTHRO POWER / Palchan – AD Hydro / 2009 - 3191-95 Dated: 27.01.2010

To,

M/S Hythro Power Corporation Limited,
810, Udyog Vihar, Phase – V, Gurgaon – 122016
Fax No.: 0124 – 4549901

Subject:

DETAIL AWARD OF CONTRACT FOR SUPPLY CONTRACT against Tender No.: **DGMC / Palchan – AD Hydro / 1 / 2009** for Detailed / Check Survey, Optimization, Design, Engineering, Manufacture, Supply, Transportation, Storage, Providing and Handling of all the Material required for the Construction of Line, Foundation Design, Foundation Casting, Revetments, Tower Erection, Stringing, Sagging, Testing and Commissioning Of 220 kV D / C Transmission Line from 220 / 33 kV Sub Station at Palchan to 220 kV A. D. Hydro Switchyard on Turn Key Basis

685,05,346/-

REFERENCE: This has reference to the following: -

- i) Bid Document No.: **DGMC / Palchan – AD Hydro / 1 / 2009** for Subject cited Package followed by Amendment issued vide this Office letter No.: HPPTCL / Palchan – AD Hydro / 2009 – 1336 dated 10.09.2009.
- ii) Your Offer No.: **HPCL / HPPTCL / Tender / Technical / 09 / 1676** Dated 25th September 2009
- iii) Our Fax Message / Letter numbers for Post Bid clarifications: -
 - a) HPPTCL / Palchan – AD Hydro / 2009 – 1693 dated 09.10.2009
 - b) HPPTCL / Palchan – AD Hydro / 2009 – 2154 dated 16.11.2009
- iv) Clarification / Confirmation furnished by you vide your letter Nos.: -
 - a) Your Letter No.: **HPCL / HPPTCL / Tender / Technical / 09 / 1676** Clr - 1 Dated 20th October 2009
 - b) **HPCL / HPPTCL / Tender / Technical / 09 / 1676** - Clr - 2 Dated 21st November 2009
 - c) **HPCL / HPPTCL / Price – 2** dated 14.12.2009

Dear Sirs,

In continuation to this Office Letter of Intent vide No.: HPPTCL / HYTHRO POWER / Palchan – AD Hydro / 2009 – 2822 dated 29.12.2009 and your Acceptance vide your Letter No.: HPCL / HPSEB / 123 – E / 09 / 2456 dated January 07, 2010, I have been authorised to intimate you that your above referred offer against this Office Tender Document No.: DGMC / Palchan – AD Hydro / 1 / 2009 for Construction of 220 kV S / C Transmission Line on 220 kV D / C Towers from 220 / 33 kV Palchan Sub Station to 220 kV A. D. Hydro Switchyard has been accepted.

The Scope of this "SUPPLY CONTRACT" includes Design, Engineering, Fabrication, Manufacture, Galvanising and Supply of all Types of Tested Towers including Nuts and Bolts, Hangers, D – Shackle etc, Tower Accessories, ZEBRA ACSR Conductor, OPGW, Hardware Fittings, Conductor and OPGW Accessories and Line Material etc on F. O. R. Site / Destination basis, Transportation, Storage, Handling of all the Material required for Construction of 220 kV S / C Transmission Line on 220 kV D / C Towers from 220 / 33 kV Sub Station at Palchan to 220 kV A. D. Hydro Switchyard (12 km) in Kullu District against Tender No.: DGMC / Palchan – AD Hydro / 1 / 2009, on Negotiated Rates as per **SCHEDULE OF QUANTITIES AND PRICES FOR ERECTION - ANNEXURE – 1** and Terms and Conditions of Tender Document.

Further the Scope shall also include Supply of all such Items which are not specifically mentioned in the Tender Document and / or your proposal but are incidental and necessary for successful Erection, Testing and Commissioning of Transmission Line unless otherwise specifically excluded in the Tender Document or this Award.

The Quantities mentioned in Annexure – 1 to this Award are Tentative. All Items of Supply falling within two Terminal Points including reasonable quantity of Spares shall be deemed to be included in the Scope of Work.

We have also Awarded the Work for Check Survey, Optimization, Engineering, Transportation, Storage, Handling of all the Material required for the Construction of Line, and all activities at Site viz taking the Delivery of Tower Parts, Bolts and Nuts, Spring Washers, Tower Accessories such as Phase Plates, Danger Plates, Number Plates, Circuit Plates, Anti - Climbing Devices, Tower Earthing, Conductor, OPGW, Insulators, Hardware Fittings and Accessories etc Unloading, Insurance, Storage at Site, Check Survey, Soil Investigation, Design and Casting of Foundation, Erection of Towers and their Extensions, Tack Welding of Bolts and Nuts including Supply and application of Zinc Rich Paint, Earthing of Towers, Fixing of Insulator Strings, stringing of Conductor and OPGW alongwith all necessary Line Accessories, Revetment and successful completion of Testing and Commissioning of completely Erected Line vide Award No.: HPPTCL / HYTHRO POWER / Palchan - AD Hydro / 2009 - 3196 - 3200 dated 27.01.2010 (herein after referred to as the Second Contract). The Contractor shall also be fully responsible for the Works to be executed under the "Second Contract" and it is expressly understood and agreed that any breach under the Second Contract shall automatically be deemed as a breach of this (First Contract) and vice – versa.

The Main Abstract of Cost is as under: -

Sr. No.	DESCRIPTION	AMOUNT (Rs.)		REMARKS
		EX - WORKS	F & I CHARGES	
1	Tower & Tower	4,66,13,854	33,55,482	As per Item No. A (1 to 12) of

	Accessories			Annexure – 1
2	Conductor & OPGW	1,09,46,337	1,82,695	As per Item No.: B (14, 15) of Annexure – 1
3	Disc Insulators	49,08,532	3,33,203	As per Item No.: C (16, 17) of Annexure – 1
4	Hardware Fittings & Accessories	24,45,678	59,463	As per Item No.: D (18 to 33) of Annexure – 1
	TOTAL	6,49,14,401	39,30,843	

TOTAL OF SUPPLY PORTION = 6,49,14,401 + 39,30,843 = 6,88,45,244

RUPEES SIX CRORE EIGHTY EIGHT LAC FORTY FIVE THOUSAND TWO HUNDRED FORTY FOUR ONLY

The Total Amount of Rupees Six Crore Eighty Eight Lac Forty Five Thousand Two Hundred Forty Five Only is **inclusive** of Freight & Insurance Charges, Excise Duty, C. S. T. / L. S. T. and any other Tax / Levy and shall not be paid extra. However, Unit Packing, Forwarding, Loading and Unloading Charges @ Rs. 4.89 per Unit shall be payable Extra on Disc Insulators only.

Price of any other Extra Item, if required to complete the Job for commissioning of OPGW, has been included in the above Prices of OPGW Accessories.

Quantities mentioned are Tentative and Actual Quantities shall be worked out after Check Survey to be carried out by the Contractor and after Detailed Engineering and Finalisation of Tower Location Chart. The Exact Quantities executed as per actual shall be paid to the Contractor.

The Main Terms and Conditions are detailed below.

MAIN TERMS AND CONDITIONS

1. PRICES:

- The Prices are FIRM and No Price Variation is admissible.
- The Price shall be applicable as per UNIT Rates for various Items.
- The Quantities of Items indicated in Annexure – 1 of this Award are Tentative. We reserve the right to vary the quantities of these Items and order on you various other Items of Work, Unit Rates for which are indicated in Annexure – 1 depending on the approved Detailed Survey of the Line.
- Excise Duty, C. S. T. / L. S. T. and any other Tax / Levy payable are included in the above Prices.
- If during Execution of the Contract, it is felt that certain Items, for which No Rates have been quoted / mentioned in this Award, are required for Construction and successful Commissioning of the Line, **nothing EXTRA shall be paid for such Item by the Purchaser / HPPTCL.**

2. DELIVERY PERIOD:

- i) Subject to any requirement in the Contract as to completion of any Section of the Works before Completion of the Whole, the Whole of the Work shall be completed in accordance with Schedule – M of Volume – I (Commercial) of the Tender Document, within the Time stated in the Contract calculated from the last day of the Period specified in the said Schedule as that within the Works are to be completed or such extended time as may be allowed under Sub Clause 3.29.2 thereof.
- ii) The Contractor will develop and furnish a Detailed Schedule in the form of PERT Network / Bar Chart indicating Activities relating to Engineering, Procurement, Manufacturing, Testing and Ex – Works Delivery and Receipt at Site for all the Equipment / Materials covered under this Contract based on the key dates identified below within 15 days of issue of this Award. This above PERT Network / Bar Chart after the approval by Purchaser will form a part of Contract Agreement.

Sr. No.	DESCRIPTION OF WORK	TIME IN MONTHS FROM THE DETAILED AWARD OF WORK	
		COMMENCE	COMPLETE
A	DRAWINGS		
1.	TOWERS		
a.	Submission of Design Calculations for all Type Of Towers	½	1
b.	Approval of Design Calculations for all Type of Towers	1	1½
c.	Submission of Structural Drawings & Foundation Design for all Type of Towers	1½	2
d.	Approval of Structural Drawings & Foundation Design for all Type of Towers	2	2½
e.	Testing of all Type of Towers	1½	2
2.	DISC INSULATORS & HARDWARE FITTINGS	6	7
a.	Submission of Drawings	½	1
b.	Approval of Drawings by the Purchaser	1	1½
B	SUPPLY OF MATERIAL		
1.	Stub, Stub Setting Template and Earthing Material for Normal Tower including Nuts and Bolts	2	3

2.	Super Structures including Extensions for Normal Tower and Nuts & Bolts	2½	4
3.	Disc Insulators and Hardware Fittings	2½	4
4.	Conductor and Earthwire / OPGW and its Accessories	3	5
5.	Special Towers including Extensions & Nuts & Bolts	3½	5

- iii. ***The Supply of Material shall be so arranged that there is no mismatch between Procurement of Material and Erection and in a manner approved by the Purchaser.***
- iv. The Firm shall complete the Supplies as per above Schedule from the Date of issue of this Award. In case the Firm submit Drawings and Designs in anticipation of the Dates prescribed, the same would be accepted.
- v. The Requirement of Material has been worked out based on preliminary survey carried out by HPPTCL, which is Tentative. The Exact Requirement of Towers and other Material shall be worked out by the Firm after the Check Survey and shall submit the Final Tower Schedule for the approval of the Purchaser in pursuant to Clause No.: 2.3 of Part – V, Volume – II of Technical Specification.

3. LIQUIDATED DAMAGES

The Time and Dates Stipulated in the Tender for the Delivery of the Equipment / Material and Completion of the Work entrusted to the Contractor shall be deemed to be the essence of Contract. Timely submission of Drawings and Data as well as timely delivery of Embedded Parts of Equipment / Material / Erection Work required for maintaining Scheduled Progress of the Works at Site is also of equal importance. Should the Contractor fail or neglect to complete the separate Portion of Works identified below or to complete the Whole of the Works within the Periods and Dates specified under the Contract, the Contractor shall pay to the Purchaser as fixed and agreed Liquidated Damages and not as penalty the sums shown below for every week (or part thereof) @ ½ % per week in Indian Rupees on the amount payable to the Contractor under the Contract subject to a maximum of 10 % of the each Item of Work.

Sr. No.	DESCRIPTION OF WORK	TIME OF COMPLETION* IN MONTHS FROM THE DATE OF AWARD OF WORK	APPLICABLE AMOUNT OF L. D. AFTER COMPLETION PERIOD
SUPPLY OF MATERIAL			
1.	Stub, Stub Setting Template for all Types of Tower including Nuts and Bolts	2	½ % per Week

2.	Super Structures including extensions, Tower Accessories and Nuts & Bolts	3	½ % per Week
3.	Disc Insulators and Hardware Fittings	3	½ % per Week
4.	Conductor and OPGW and its Accessories	4	½ % per Week
5.	Special Towers including Extensions and Nuts & Bolts	4	½ % per Week

** Time Schedule shall be guaranteed by the Bidders as per Erection Schedule provided in Schedule of Engineering (Schedule - M) of Volume – I (Commercial) and shall be applicable as agreed for Successful Bidder. In case Whole the Work is delayed, the Maximum Stipulated Liquidated Damages shall not exceed 10 % of the Total Contract Price. The Supply of Material shall be so arranged that there is no mismatch between Procurement and Erection of Material and in a manner approved by the Purchaser. The Liquidated Damages shall be applicable only on left out activity.*

Provided that in any case where under Sub Clause 4.13.1 of Volume – I (Commercial), the Contractor makes itself liable to pay the Maximum Stipulated Damages and fails to execute the Contract, the Purchaser shall have the power to adopt any or all the following recourses as may be deemed fit:

- a) Purchaser may rescind the Contract by giving one month notice of recession, and may take steps to forfeit the Contractor's Security to fulfil the Contract as a part of compensation for the losses caused by the Contractor to the Purchaser.
- b) Purchaser may arrange to have the remaining Supply of Material / Execution of Work completed from other Sources, at the Contractor's risk and cost, and such Supply shall in no way be deemed to affect the Contractor's Guarantee for the proper performance of the Equipment / Material supplied by him.
- c) Purchaser may take steps to recover all losses caused to him by the non - execution of the Contract.
- d) If on any occasion, the Purchaser abstains from exercising the power given to him by these Clauses such abstention shall not prevent him from exercising such power on subsequent occasion, and if the Contractor again makes default, it shall be lawful for the Purchaser to re - impose the Damages as stipulated in these Clauses.

An unexcused delay by the Contractor in the performance of the Contractual obligations shall render the Contractor to any or all the following: -

- a) Sanctions,
- b) Forfeiture of its Performance Security;

- c) Imposition of Liquidated Damages; and / or
- d) Termination of the Contract at the risk and cost of the Contractor.

4. **STAGE PENALTY:**

- a. To ensure that the Contractor starts the Work immediately after signing of the Contract, the following Minimum Progress of Work, both in respect of Supply of Equipment against Supply Contract and Physical Progress of Civil and Erection Activities at Site against Erection Contract separately, will have to be achieved by the Contractor in terms of Financial Values:-

PERIOD STARTING FROM SIGNING THE CONTRACT	FINANCIAL ACHIEVEMENT INCLUDING SUPPLY OF EQUIPMENT
Within 1 (One) months	10 % of the Contract Value
Within 3 (Three) months	40 % of the Contract Value
Within 5 (Five) months	70 % of the Contract Value

- b. The Contractor shall ensure the Completion of Supply and Erection Activities separately for the above values, failing which the Stage Penalty @ ½ % per week or part thereof for the amount equal to Short Fall in Progress achieved will be levied for the period starting from the Due Date of Achievement of above targets.
- c. The Stage Penalty shall be calculated separately for Supply Contract and the Contract for Erection and Civil Works. The Stage Penalty shall be calculated in number of days of shortfall.
- d. The Achievement of Target will be the Date on which the Material Receipt or Erection Activity is completed by the Contractor at Site as indicated on the Bill / Invoice by the Engineer.
- e. However, the Total Amount of Stage Penalty plus Liquidated Damages leviable for non-completion of Transmission Line in time will not exceed 15 % of the Contract Value of the Transmission Line not commissioned in time in any case.
- f. The Stage Penalty levied shall be reviewed on completion of the Work to the extent that where the **Work as a Whole** is completed within the stipulated Completion Period or the Total Delay in Commissioning of the Transmission Line is less than 2 (Two) Weeks, **no Stage Penalty shall be chargeable** and the Stage Penalty already charged for the delay in completion of Individual Stage, if any shall be refundable to the Contractor through the Bill payable on completion of the Work.
- g. The Stages of the Work will be identified and defined as per approved PERT Chart. The Phasing of Execution of the Turnkey Project will be formulated in a way that appropriate linkage of expenditure would be made not only with Supply but also with the Physical Activities as Site.
- h. The Contractor shall provide for proper checks and balances to ensure timely completion of the Turnkey Contract.

5. **INCENTIVE:**

As the Work is of very urgent nature and its timely commissioning is of utmost importance to evacuate the Power from Palchan Sub Station. Advanced Commissioning of this Transmission Line will be appreciated and an Incentive @ 0.25 % of the Contracted Amount per Week counted backward from the Contracted Completion Date shall be paid to the Contractor. It is clarified that Part of Week shall not be counted for any Incentive.

6. **CERTIFICATES OF PAYMENTS:**

- (i) Ninety Percent (90 %) of the Ex - Works Price and 100 % Excise Duty, Sales Tax, Freight & Insurance Charges after deducting Mobilisation Advance @ 20 % of the Bill Amount and upto Date accrued Interest thereon, shall be paid within 20 days after Receipt of Material in the Contractor's Site Stores but after verification by the Engineer or his authorized representative and upon submission of the Documents specified below, whichever is later and shall be released by the Central Payment Cell of the Purchaser:
 - (a) Original and 4 Copies of the Invoices showing Award Number, Goods Description, Quantity, Unit Price and Total Amount.
 - (b) Packing List (4 Copies)
 - (c) Railways Receipt / Receipted L. R.
 - (d) Manufacturers / Contractors Guarantee Certificate of Quality.
 - (e) Material Inspection Clearance Certificate for Dispatch issued by the Purchaser's Representative and the Contractor's Factory Inspection Report, Transit Insurance Certificate and Indemnity Bond for full value of Material valid until the taking over of said Transmission Line by the Purchaser.
 - (f) Taxes & Duties shall be paid against Documentary Evidence.
 - (g) The Type Test Charges shall be paid on successful completion of the Type Test / Proto Type Test specified and on approval of the Test Results by the Purchaser.
- (ii) The Balance 10 % of the Ex - Works Price of each Item as per Price Schedule shall be made within 20 days of the Certificate by the Purchaser's Engineers that the Item(s) have been received and provided and on submission of Bank Guarantee for 10 % of full amount valid until completion of Testing and Issuance of Taking - Over Certificate.
- (iii) However, in case Payment is delayed beyond 20 days due to one or the other reason no interest for the delayed period shall be admissible.

The other Terms and Conditions for Payments shall be governed as per Clause 4.15 of Special Conditions of the Contract, Volume – I and Clause 1.12 of Part – V, Volume – II of Tender Document.

Payment in respect of Fabricated Tower Material and Bolts & Nuts shall be made in accordance with Clause No.: 1.16 of Part – I, Volume – II of the Tender Document.

7. GUARANTEED WEIGHT:

The Guaranteed Weight and Ceiling Volumes of Excavation / Concrete for all Types of Towers, Extensions, Leg Extensions, Stubs and stub Setting Templates, Nuts & Bolts shall be considered on composite basis for all Types of Towers / Structures taken together and not on individual basis for Payment Purpose.

In case of any increase or decrease in overall weights of Fabricated Members and Bolts & Nuts for all type of Towers, Extensions, Leg Extensions, Stubs and Stubs Setting Templates and their Foundation Volumes, the Contract shall be governed in terms of Clause No.: 1.16 of the Technical Conditions of Contract, Part – I, Volume – II of the Tender Document.

The Payment for Special Towers / Structures shall be made as per ACTUAL Weight and as per ACTUAL Volume of Excavation and Concrete.

8. DESIGN AND PROTOTYPE TESTING OF TOWERS:

The Firm has offered fresh Design and Testing of Towers instead of Predesigned and Tested Towers. Hence, before proceeding with Mass Fabrication of Towers, Proto of each type of Tower shall be inspected as per Clause No.: 1.33 and Tested in accordance with Clause No.: 1.37 of Technical Specification, Part – I, Volume – II. The Proto Testing of each type of un-galvanised Tower shall be carried out with 6.0 metres Full Body Extension upto Destruction Test. The Purchaser shall pay no Tower Testing Charges if Type Test is not carried out on the Proto of the Tower.

9. SPECIAL STRUCTURES:

Special Towers / Structures shall be used, for Long Spans / River Crossing / Power Line Crossings and where Level difference is high and Normal Towers are not suitable. The Scope of Supply of these Towers includes Design of Foundations, Towers, Template and Supply of Towers and their Accessories etc. The Bidder shall submit the most economical design for these Towers.

The Unit Rate per Tonne for Design, Fabrication, Supply of Special Towers and Sets of Stub, (including Stub Setting Templates) are the same as quoted for Normal Tower in appropriate Schedules. The Payment for Special Towers / Structures shall be based on Actual Weight of Towers as per most economical design. The Special structures shall be designed in accordance with Section – II, Volume – II of Technical Specification.

10. FOUNDATIONS:

The Firm is required to furnish Designs, Layout Specifications and Constructional Drawings for various types of Foundations likely to be involved during the Erection as per Clause No.: 1.29 of the Technical Specification (Volume – II). No extra payment shall be made to the Firm for these Designs.

11. SPECIFICATIONS:

The Towers, Tower Accessories, Conductor, OPGW, Disc Insulators, Hardware Fittings and other Material required to be supplied shall comply and confirm to Technical Specification, Volume – II.

12. TESTS:

All type of Tests i.e. *Type Tests, Routine Tests and Acceptance Tests* etc for complete Material shall be governed as per relevant Clauses of Volume – II of the Tender Document. The Tests Charges shall be paid as per Annexure – 1 of the Award in case the Tests are conducted as per requirement of the Purchaser. However, No Charges shall be paid for already Type Tested Material.

13. INSPECTION AND DESPATCH OF MATERIAL:

The Firm shall afford all facilities to the Purchaser to inspect and satisfy himself that the Work in hand is in all respect according to the Specifications. The Firm shall make all necessary arrangements so that Material may be inspected and Tested as desired by the Authorised Inspecting Officer of the Purchaser. No Material is to be dispatched until it has been inspected and approved by the Purchasers' Authorised Inspecting Officer. The inspection and despatch of Material shall be governed as per relevant Clauses of Volume – II of the Specifications.

14. EXECUTION OF CONTRACT:

The Contractor shall have to execute a Contract Agreement on the Terms and Conditions envisaged in Tender Document and the Detailed Purchase Order or as has been mutually agreed to after negotiations, within 30 calendar days from the Detailed Award of Work. It is a legitimate obligation of the Contractor to execute and to Stamp the Contract, in accordance with the Indian Stamp Act and to supply six copies of Contract Drawings, Technical Particulars as finally approved by the Purchaser and other Literature and Instruction Books regarding Handling, Use and Maintenance of Equipments / Material. The Cost of all these and such other Items has been deemed to have been included in the Tendered Prices and the Contractor will not be entitled to any extra payment on these accounts. However, non - execution of the Contract Agreement by the Contractor shall not absolve him of the responsibility of the faithful execution of the Contract

15. WARRANTY / GUARANTEE:

Against any defect in Material / Services or Faulty Workmanship, the Contractor shall Guarantee the satisfactory performance of the Transmission Line for a period of eighteen months from the Date of Actual Taking Over or Twelve months after its Commissioning whichever expires earlier. The other Terms of warranty / Guarantee shall be as per Clause No.: 3.56 of Commercial Conditions, Volume – I,

16. CONTRACT PERFORMANCE SECURITY:

- i. Within 30 days after the Contractor's receipt of Notification of Detailed Award of the Contract, the Contractor shall furnish Contract Performance Security to the Purchaser. The Performance Security shall be for 10 % of the Contract Value considering both the Contracts together (i.e.

Supply Contract and Erection Contract) and should be valid upto the end of Warranty Period as per Contract.

- ii. The proceeds of the Contract Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract.
- iii. The Contract Performance Security shall be denominated in the currency of the Contract and shall be in the form of a Bank Guarantee issued by a Nationalised / Scheduled Bank located in India.
- iv. The Contract Performance Security will be discharged by the Purchaser and returned to the Contractor promptly following the completion of the Contractor's Performance Obligations, including any Warranty obligations under the Contract. No interest will be paid on the Contract Performance Security.

17. SETTLEMENT OF DISPUTES BY ARBITRATION:

Except where otherwise provided in the Contract, all Questions and Disputes arising out of or relating to the Contract shall be referred to the Sole Arbitrator i.e. Managing Director, HPPTCL or any other person appointed by him. The Settlement of Disputes shall be governed as per Clause No.: 3.44 of commercial conditions, Volume – I.

18. FORCE MAJEURE:

The Contractor shall not be liable for any loss or damage due to delay in Manufacture or Delivery resulting from any causes beyond the Contractor's reasonable control, including but not limited to compliance with Regulations, Orders or Instructions of any Federal State or Municipal Government or Agency thereof, Acts of God, Acts of Omission on the part of the Purchaser, Acts of Civil and Military Authorities, Fires, Strikes, Factory Shut Downs or Altercations, Embargoes, Wars and Riots. The Force Majeure Conditions will be subject to production of satisfactory Documentary Proof.

Delay in Transportation or inability to obtain Materials due to import or non - availability of Raw Material and Power Cuts shall not be considered as Force Majeure.

19. VARIATIONS / OMISSIONS:

The Purchaser shall make any variation in Quantity of Works or any part thereof that may in his opinion, is necessary, in pursuant to Clause No.: 3.35 of the Commercial Conditions of Tender Document, if required at the time of actual execution of work and to increase / decrease the quantity of Civil Works as per actual measurement at Site during the Execution of Contract.

20. TERMINATION FOR CONVENIENCE:

The Purchaser shall be entitled to terminate this Contract, in Whole or in Part, at any time for the Purchaser's convenience after giving thirty days prior notice to the Contractor, with a copy to the Engineer.

In the event of such Termination, the Contractor shall:

- a) Proceed as provided in Sub Clause 3.42.7 of Section - III to Commercial Conditions, Volume - I; and
- b) Be paid by the Purchaser as provided in Sub Clause 3.42.8 of Commercial Conditions, Volume - I.

The Termination for default shall be governed as per Clause 3.42 of commercial Conditions, Volume - I.

21. INDEMNITY BOND:

For releasing the Payments against the Supply of Material, the Contractor is required to furnish an Indemnity Bond as per Form - VII for Full Value of the Material valid until the Taking Over of the said Transmission Line by the Purchaser in pursuant to Clause No.: 4.15 of Special Conditions of Contract.

22. OTHER TERMS AND CONDITIONS:

The Contract Award shall be further subject to other Terms and Conditions as stipulated in Commercial Conditions (Volume - I) and Technical Conditions (Volume - II) of the Tender Document No.: DGMC / Palchan - AD Hydro / 1 / 2009.

Please acknowledge the receipt.

ENCLOSURES:

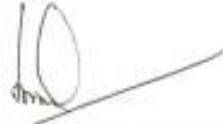
1. Schedule of Quantities and Prices for Erection - Annexure - 1
2. Guaranteed Weight of Towers - Schedule - GW

Yours Faithfully,

Sd/-
GENERAL MANAGER (CONTRACTS)

Copy forwarded to the following alongwith Enclosures for information and necessary action: -

- ✓ 1. Dy. General Manager (Contracts), HPPTCL, Barowalias House, Khalini, Shimla - 171002
2. Dy. General Manager (Projects), HPPTCL, Barowalias House, Khalini, Shimla - 171002
3. Sr. Manager, HPPTCL, Sarabai, Bhunter, District - Kullu - 175125 (H. P.) - Two Copies.
4. Sr. Accounts Officer, HPPTCL, Barowalias House, Khalini, Shimla - 171002


GENERAL MANAGER (CONTRACTS)

SCHEDULE - GW

GUARANTEED WEIGHT OF TOWER

Sr. No.	DESCRIPTION	TENTATIVE QUANTITY Nos.	UNIT GUARANTEED WEIGHT		TOTAL GUARANTEED WEIGHT	
			FABRICATED MEMBER (MT)	BOLTS & NUTS (MT)	FABRICATED MEMBER (MT)	BOLTS & NUTS (MT)

SNOW ZONE

1 TOWER TYPE: 'W' (0 degree to 2 degrees)

i)	Basic Body	0	5.216	0.316	0.000	0.000
ii)	+ 0 m Base / 0 m Leg Extn. (1 Leg)	0	0.145	0.008	0.000	0.000
iii)	+ 3 m Full Body Extension		1.124	0.057	0.000	0.000
iv)	+ 6 m Full Body Extension		1.873	0.096	0.000	0.000
v)	+ 1.5 m Leg Extension (1 Leg)		0.213	0.012	0.000	0.000
vi)	+ 3.0 m Leg Extension (1 Leg)		0.288	0.015	0.000	0.000
vii)	+ 4.5 m Leg Extension (1 Leg)		0.377	0.019	0.000	0.000
viii)	+ 6.0 m Leg Extension (1 Leg)		0.471	0.023	0.000	0.000
ix)	Stubs for above (Set of 4)	0	0.292	0.006	0.000	0.000
x)	Stub Setting Template	0	0.332	0.013	0.000	0.000

2 TOWER TYPE: 'X' (0 degree to 15 degrees)

i)	Basic Body	19	7.4520	0.4510	141.588	8.5690
ii)	+ 0 m Base / 0 m Leg Extn. (1 Leg)	55	0.2070	0.0120	11.385	0.6600
iii)	+ 3 m Full Body Extension	2	1.6060	0.0820	3.212	0.1640
iv)	+ 6 m Full Body Extension	13	2.6760	0.1370	34.788	1.7810
v)	+ 1.5 m Leg Extension (1 Leg)	8	0.3050	0.0170	2.440	0.1360
vi)	+ 3.0 m Leg Extension (1 Leg)	9	0.4120	0.0220	3.708	0.1980
vii)	+ 4.5 m Leg Extension (1 Leg)	4	0.5380	0.0270	2.152	0.1080
viii)	+ 6.0 m Leg Extension (1 Leg)		0.6730	0.0330	0.000	0.0000

ix)	Stubs for above (Set of 4)	19	0.4170	0.0080	7.923	0.1520
x)	Stub Setting Template	1	0.4740	0.0190	0.474	0.0190

3 TOWER TYPE: 'Y' (0 degree to 30 degrees)

i)	Basic Body	14	8.7730	0.4510	122.822	6.3140
ii)	+ 0 m Base / 0 m Leg Extn (1 Leg)	39	0.2610	0.0110	10.179	0.4290
iii)	+ 3 m Full Body Extension		1.8720	0.0710	0.000	0.0000
iv)	+ 6 m Full Body Extension	9	3.1210	0.1180	28.089	1.0619
v)	+ 1.5 m Leg Extension (1 Leg)	4	0.3680	0.1810	1.472	0.7240
vi)	+ 3.0 m Leg Extension (1 Leg)	8	0.4860	0.2310	3.888	1.8480
vii)	+ 4.5 m Leg Extension (1 Leg)	5	0.6430	0.3230	3.215	1.6150
viii)	+ 6.0 m Leg Extension (1 Leg)		0.7600	0.3420	0.000	0.0000
ix)	Stubs for above (Set of 4)	14	0.4910	0.0090	6.874	0.1260
x)	Stub Setting Template	1	0.4950	0.0260	0.495	0.0260

4 TOWER TYPE: 'Z' (0 degree to 60 degrees)

i)	Basic Body	12	10.359	0.456	124.308	5.4720
ii)	+ 0 m Base / 0 m Leg Extn (1 Leg)	38	0.285	0.093	10.830	3.5340
iii)	+ 3 m Full Body Extension	1	2.137	0.077	2.137	0.0770
iv)	+ 6 m Full Body Extension	9	3.751	0.120	33.759	1.0800
v)	+ 1.5 m Leg Extension (1 Leg)	5	0.446	0.152	2.230	0.7600
vi)	+ 3.0 m Leg Extension (1 Leg)	4	0.593	0.022	2.372	0.0880
vii)	+ 4.5 m Leg Extension (1 Leg)	1	0.789	0.034	0.789	0.0340
viii)	+ 6.0 m Leg Extension (1 Leg)		0.909	0.037	0.000	0.0000
ix)	Stubs for above (Set of 4)	12	0.665	0.013	7.980	0.1560
x)	Stub Setting Template	1	0.581	0.026	0.581	0.0260

5	TOWER TYPE: 'Spl' (0 degree to 60 degrees)				
i)	Basic Body	2	10.918	0.463	21.836
ii)	+ 0 m Base / 0 m Leg Extn. (1 Leg)			Weight as per Actual	0.9260
iii)	+ 3 m Full Body Extension			Weight as per Actual	
iv)	+ 6 m Full Body Extension			Weight as per Actual	
v)	+ 1.5 m Leg Extension (1 Leg)			Weight as per Actual	
vi)	+ 3.0 m Leg Extension (1 Leg)			Weight as per Actual	
vii)	+ 4.5 m Leg Extension (1 Leg)			Weight as per Actual	
viii)	+ 6.0 m Leg Extension (1 Leg)			Weight as per Actual	
ix)	Slubs for above (Set of 4)			Weight as per Actual	
x)	Stub Setting Template			Weight as per Actual	

NOTE:

★ Quantities mentioned above are Tentative and Actual Quantities shall be worked out after Check Survey to be carried out by the Contractor and after Tower Detailed Engineering and Finalisation of Location Chart. The Exact Quantities executed as per actual shall be paid to the Contractor.

ANNEXURE - 1

SCHEDULE OF REQUIREMENT AND PRICES

Sr. No.	DESCRIPTION	UNIT	QTY.	EX - WORKS PRICE IN RUPEES		FREIGHT & INSURANCE	
				UNIT	TOTAL	UNIT	TOTAL
A	TOWER AND TOWER ACCESSORIES						
1	Design, Fabrication and Supply of all Type of 220 kV D / C Galvanised Steel Towers, Extensions including Stubs, Stub Setting Templates (For Quantities Guaranteed in Schedule - GW)	MT Nos	569.69 45	63,185.60	35,996,204.46	5,131.88	2,923,580.72
2	Design, Fabrication and Supply of Special Structures / Towers (Total Tentative Quantity)	MT Nos	21.836 2	63,185.60	1,379,720.76	5,131.88	112,059.73
3	Nuts , Bolts & Washers for Item No. 1 above	MT	35.158	82,141.28	2,887,923.12	4,105.50	144,341.17
4	Nuts , Bolts & Washers for Item No. 2 above (Total Tentative Quantity)	MT	0.926	82,141.28	76,062.83	4,105.50	3,801.69
5	Tower Testing Charges with 6 metres Full Body Extension upto Destruction Tests including the Cost of Material after allowing Rebate for Scrap Value of Steel of Destroyed Tower						
i)	Tower Type 'W'	Set	1	853,944.00	853,944.00	16,422.00	16,422.00

Sr. No.	DESCRIPTION	UNIT	QTY.	EX - WORKS PRICE IN RUPEES		FREIGHT & INSURANCE	
				UNIT	TOTAL	UNIT	TOTAL
ii)	Tower Type 'X'	Set	1	1,457,452.50	1,457,452.50	34,896.75	34,896.75
iii)	Tower Type 'Y'	Set	1	1,642,200.00	1,642,200.00	41,055.00	41,055.00
iv)	Tower Type 'Z'	Set	1	2,011,695.00	2,011,695.00	53,371.50	53,371.50
6	Number Plates with Bolts, Nuts and Washers	Set	47	228.74	10,750.78	20.53	964.91
7	Danger Plates with Bolts, Nuts and Washers	Set	47	228.74	10,750.78	20.53	964.91
8	Phase Plates with Bolts, Nuts and Washers (Set of 3 Plates)	Set	47	172.04	8,085.88	20.53	964.91
9	Circuit Plates with Bolts, Nuts and Washers (Set of 2 Plates)	Set	47	343.10	16,125.70	20.53	964.91
10	Anti - Climbing Devices for 220 kV, D / C Towers including Bolts, Nuts & Washers for all Types of Towers including Barbed Wire	Set	47	2,518.04	118,347.88	205.28	9,648.16
11	Bird Guards for Tangent Towers	Set	47	1,030.29	48,423.63	154.45	7,259.15
12	Earthing Material for Towers (i) Pipe Type Earthing Material complete with necessary Bolts, Nuts and Washers	Set	40	1,831.84	73,273.60	102.64	4,105.60

Sr. No.	DESCRIPTION	UNIT	QTY.	EX - WORKS PRICE IN RUPEES		FREIGHT & INSURANCE	
				UNIT	TOTAL	UNIT	TOTAL

(ii) Counterpoise Earthing Set complete with necessary Bolts, Nuts and Washers

15 metres Long	Set	4	2,289.31	9,157.24	154.45	617.80
30 metres Long	Set	3	4,578.61	13,735.83	154.45	453.35

TOTAL OF TOWER & TOWER ACCESSORIES

46,613,853.99
3,355,482.26

14	ACSR 'ZEBRA' CONDUCTOR	km	38	200,541.95	7,620,594.10	4,105.50	156,009.00
----	------------------------	----	----	------------	--------------	----------	------------

15	SINGLE MODE 12 FIBRE OPTICAL GROUND WIRE (OPGW) alongwith Termination Equipment for both ENDS	km	13	255,826.41	3,325,743.33	2,052.75	26,685.75
----	---	----	----	------------	--------------	----------	-----------

DISC INSULATORS suitable for SNOW BOUND AREA with Minimum Temperature of - 20 Degrees Centigrade

16	90 kN	Nos.	2470	493.64	1,219,290.80	31.28	77,261.60
17	160 kN	Nos.	4940	745.81	3,689,241.40	51.81	255,941.40

HARDWARE FITTINGS

18	Single Suspension Hardware Fitting for ACSR 'ZEBRA'	Set	0	1,568.89	0.00	41.06	0.00
----	---	-----	---	----------	------	-------	------

Sr. No.	DESCRIPTION	UNIT	QTY.	EX - WORKS PRICE IN RUPEES		FREIGHT & INSURANCE	
				UNIT	TOTAL	UNIT	TOTAL
19	Double Suspension Hardware Fitting for ACSR 'ZEBRA'	Set	7	3,631.41	25,419.87	82.11	574.77
20	Suspension Hardware Fitting for Pilot String	Set	155	1,568.89	243,177.95	41.06	6,364.30
21	Single Tension Hardware Fitting for ACSR ZEBRA						
	With FAH	Set	292	2,700.83	788,642.36	61.58	17,981.36
	With AAH	Set	32	2,954.01	94,528.32	66.47	2,127.04
22	Double Tension Hardware Fitting for ACSR ZEBRA						
	With FAH	Set	10	5,041.95	50,419.50	123.17	1,231.70
	With AAH	Set	7	5,421.22	37,948.54	246.33	1,724.31
ACCESSORIES FOR ACSR 'ZEBRA' CONDUCTOR							
25	Mid Span Compression Joint	Nos.	96	756.59	72,632.64	15.64	1,501.44
26	Repair Sleeve	Nos.	96	305.96	29,372.16	4.89	469.44
27	Vibration Dampers	Nos.	423	670.57	283,651.11	20.53	8,684.19
28	Preformed Armour Rod	Set	28	1,454.52	40,726.56	25.42	711.76
OPGW ACCESSORIES							
29	Jointing Box	Nos.	3	7,510.13	22,530.39	174.00	522.00
30	Vibration Dampers	Nos.	141	804.48	113,431.68	18.57	2,618.37
31	Suspension Hardware Fitting for OPGW	Set	2	4,254.08	8,508.16	98.73	197.46

Sr. No.	DESCRIPTION	UNIT	QTY.	EX - WORKS PRICE IN RUPEES		FREIGHT & INSURANCE	
				UNIT	TOTAL	UNIT	TOTAL

32	Tension Hardware Fitting for OPGW	Set	92	6,779.94	623,754.48	157.38	14,478.96
33	Flexible Copper bond	Nos.	47	232.65	10,934.55	5.87	275.89

TOTAL OF SUPPLY PORTION

111,528,255.89

7,286,325.26

11,15,28,255.89

NOTE:

- 1 Unit Packing, Forwarding, Loading and Unloading Charges @ Rs. 4.89 per Unit shall be payable Extra on Disc Insulators only.
- 2 Excise Duty, C. S. T. / L. S. T. and any other Tax / Levy payable are included in the above Prices.
- 3 Quantities mentioned above are Tentative and Actual Quantities shall be worked out after Check Survey to be carried out by the Contractor and after Detailed Engineering and Finalisation of Tower Location Chart. The Exact Quantities executed as per actual shall be paid to the Contractor.
- 4 Price of any other Extra item, if required to complete the Job for commissioning of OPGW, has been included in the above Prices of OPGW Accessories.