

247

Estimate for Providing 700 Rmt See Through Wall for construction of testing facility in Gajulapet RF of Mahabubnagar Forest Division in favour of M/s. HBL Power Systems Ltd., Hyderabad

Sl. No	ITEM CODE	Description of item	Measurements				QTY	RATE	UNIT	AMOUNT
			No.s	L	B	D				
1	BLD CSTN-2-1 (9) at page 16	Earth work excavation for foundations and depositing on bank for all lifts and with an initial lead of 10m including all operational, incidental, labour charges such as shoring, sheeting, planking, strutting, etc. complete for finished item of work excluding seigniorage excluding dewatering charges etc as per SS 20B (ApSS 308) in Ordinary Soil-Manual Means-Upto 3M depth								
		For foundations for RR Masonary	1	700.00	0.45	0.45	141.75			
		Total					141.75	238.21	cum	33767.00
2		Plain Cement Concrete 1:5:10	1	700.00	0.45	0.15	47.25	3865.46		182643.00
3	BLD-CSTN-3-1	Plain Cement Concrete M20 proportion nominal mix (1:1.5:3)(cement: fine aggregate: Coarse aggregate) for foundation levelling courses and below flooring beds using 20mm size graded (SS5) hard Granite metal upto Plinth level from approved quarry including cost and conveyance of all materials like cement, sand, coarse aggregate, water etc. to site, excluding seigniorage charges, sales & other taxes on all materials and including all charges for mixing, laying concrete in foundations curing etc., complete for finished item of work. (APSS No. 402)								
		PCC over brick masonry	1	700.00	0.23	0.10	16.10			
		Total					16.10	6844.18	cum	110191.00
		PCC M20 with centring charges								
		For Pillars(below ground) (700/3)	233.33	0.45	0.45	0.3	14.17			
		For Pillars(above ground)	233.33	0.3	0.23	0.30	4.83			
		Total					19.00	7815.00	cum	148485.00
4	BLD-CSTN-6-13	Random Rubble Stone masonry in CM (1:8) prop: (cement : sand) using hard Granite stones from approved quarry including cost and conveyance of all materials like cement, sand water, granite stones, etc., from approved quarry to site and including labour for cutting stones to required size and shape, mixing of cement, mortar, construction, curing etc., complete for finished item of work in foundation & basement. (APSS No. 615 & 601)								
		Total length	1	700.00	0.45	0.3	94.50			
		Deduct pillar portion(below ground)	233.33	0.45	0.45	0.3	-14.17			
		Net Qty					80.33	4625.82	cum	371592.00

Sl. No	ITEM CODE	Description of item	Measurements				QTY	RATE	UNIT	AMOUNT
			No.s	L	B	D				
5	BLD-CSTN-54	Brick Masonry in superstructure with CM (1:6) prop: with 2nd class bricks traditional size 23x11x7 including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, labour charges such as mixing cement mortar, constructing masonry, scaffolding charges, lift charges, curing, etc., complete for finished item of work.								
		Total length	1	700.00	0.23	0.30	48.30			
		Deduct pillar portion(above ground)	233.33	0.3	0.23	0.30	-4.83			
		Net Qty					43.47	7643.59	cum	332267.00
6		Supply, Cutting to required length welding where ever required, grinding the edges smooth applying a primary coat of red oxide and painting with two coats of synthetic enamel paint, fabrication, hoisting and installation all as per specification at all heights								
			Nos.	length	Wt/met					
	a)	ISA 75 x75 x6 mm vertical posts of total length 2.60 met with 400 mm bend at top	233.33	2.6	6.80		4125.274			
	b)	Hold fast of ISA 40x40x5mm MS Angle (2x233.33 = 466.66)	466.66	0.30	3.00		419.99			
	c)	2No's ISA 40x40x5mm for total length of chainlink horizontal ties one at top and one at middle of vertical posts true to horizontal and to be welded flush with vertical posts	2	700.00	3.00		4200.00			
							8745.27	95.63	kgs	836293.00
7	BLD-CSTN-82	Plastering in CM(1:4) 12mm thick sponge finishing including cost and conveyance of all materials like cement, sand, water etc., to site,all labour charges for mixing mortar, finishing, curing, etc., complete for finished item of work for internal surfacaes.(SS 901,903 & 904)								
		Total length (0.30+0.10+0.23+0.10+0.30=1.03)	1	700.00	1.03		721.00			
		Net Qty					721.00	182.59	Sqmt	131649.00
8	BLD-CSTN-12.7 & 12.12	Painting to new iron work with 2 coats of synthetic enamel paint of approved brand shade after thoroughly brushing the surface to remove all dirt and remains of dead mortar, including cost and conveyance of all materials to work site and all operational, incidental,labor chagres etc., complete for finished item of work as per APSSS no:1212								
			Nos.	length		width				
		ISA 75x75x6 mm vertical posts of height (2.20)	233.33	2.20		0.3	154.00			
		ISA 40x40x5 mm horizontals at top and middle	2	700.00		0.16	224.00			
							378.00	165.84	1 sqm	62687.00

281

Sl. No	ITEM CODE	Description of item	Measurements				QTY	RATE	UNIT	AMOUNT
			No.s	L	B	D				
9	Data	Supplying and fixing of GI Chain link fencing of mesh size 2½"x2½"-8 guage(63 mm x63 mm-4.0 mm) including welding the chain link fencing to the MS Angle vertical posts, horizontal ties and including tack welding to the chain link fencing at 300 mm -400 mm interval to the MS vertical posts and horizontals including cost and conveyance of all materials and labour charges for all operations etc., complete for finished item.								
			1	700.00		1.50	1050.00	486.82	sqm	511156.80
9		Supplying & Fixing of Galvanized steel barbed wire (IS :278-1962) weighing 9.38 kf per 100 metres min .Straining and fixing to any type of standard rails, straining bolts, including securing with and provision of galvanized mild steel wire stappies or steel pins etc.as directed (posts and struts of wood, concrete and steel etc) and straining bolts shall be separately.								
			3	700.00			2100.00	13.49	Rmt	28324.80
		TOTAL								2749055.60
		Contingencies (Publicity Boards, Other Expenditure, etc.,)								50944.40
		Grand Total:								2800000.00

Sd/-
District Forest Officer,
Mahabubnagar.

253

**ESTIMATE FOR ADVANCE OPERATIONS SMM - UNIT COST
FOR THE YEAR 2018-19**

Espacement 3x3

1111

1 Ha

Sl. No.	Description	FSR No.	Quantity	Rate	Unit	Amount
1	2	3	4	5	6	7
	ADVANCE OPERATION (PRE-PLANTING OPERATION) - All advance-operation works of plantations to be raised shall be completed before March. Perambulation of site, preparing site inspection report including type of vegetation and density, approval of site suitability and the category of jungle growth clearance, taking the images of the existing vegetation, preparation of treatment plan shall be prepared and approved by DFO before taking up advance operation. In case of retrieved encroached area to be planted with SMM, mention will be made regarding the type of vegetation existing and whether uprootal is required, or can be directly ploughed with a heavy duty tractor)					
1	Survey with hand-held GPS (staff to carry out) and demarcation - one manday is allowed for assistance. The surveyed sketch with exact effective area statement will be uploaded in MIS platform latest by February end.	02.08.01	1	326.59	1	327
2	Clearing unsalable unwanted jungle growth (leaving all the tree species of good form particularly the hardwood tree species like Teak, Nallamaddi, Yegisa, Narepa, Somi, Jitregi, Billudu, Chenangi etc. and NTFP species like Ippa, Morri, Tani, Karaka, Vepa, Maredu, Tapasi, Tuniki, Chinta, Usuri, Nallajeedi etc.); Spreading the cut material all over the site; and Burning the same twice till completely burnt. The unsuitable area shall be excluded from the clearing operation and the expenditure shall be incurred for effective area only. All the above operations shall be completed before December.					
	Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on the field inspection of DFO.	02.08.02	1	5468.03	1	5468
			Ha		Ha	
3	Formation of New Fire lines of 5.00 m width and cleaning of old fire lines if not maintained for last 5 years including burning.	03.01.04	500	717.14	100	3586
			RMT		RMT	
4	Uprootal of Stumps (excluding unsuitable patches) to a minimum depth of 45 cm with heavy machinery fitted with 0.90 cum and above capacity bucket, filling the pits caused by uprootal, and levelling. For retrieved encroached area, the approval of Circle Head is required and the approval should indicate clearly the density of stumps or vegetation to be removed through uprootal. The uprootal work can be carried out preferably through tender process.					
	(c) Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on the field inspection of DFO.	02.08.03	1	11513.51	1	11514
			Ha.			
5	Collection and Removal of Uprooted Stumps of all sizes, other debris etc., to outside the plantation site.					
	Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on the field inspection of DFO.	02.08.04	1	9014.96	1	9015
			Ha.			
6	Tilling (PERMISSIBLE FOR CA AREA ONLY) the soil to a depth of 45 cm in the effective area (excluding unsuitable patches) with heavy duty machinery fitted with 0.90 cum and above capacity bucket and levelling - ONLY PERMISSIBLE FOR CA AREA and written approval of Circle Head is needed and required budgetary provision has to find place in annual approved plan) and VIP planting area (minimum area should be more than 1 ha area). The uprootal and tilling works shall be done preferably through tender process and the execution of work should be completed before end of March.					
	(c) Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on field inspection of DFO.	02.08.05	1	8527.85	1	8528
			Ha			
	Contingencies					563
	TOTAL					39000

Say
39000 /Ha
42900

A) Raising of Mixed plantation - SMM - (TILLED) - UNIT COST- 2018-19

Sl. No.	Description	FSR No.	3M X 3M	1 Ha	1111	Amount
			Quantit y	Rate	Per	
1	2	3	4	5	6	7
1	Deep Ploughing the effective (excluding unsuitable patches) plantation area across the slope to a depth of 30 cm with Heavy-duty Tractor of 55 HP and above with Firm Mould Board (FMB) plough. FOR TILLED AREA ONLY	02.09.02	1	4510	Ha	4510
2	Cost of preparation of stakes (0.45 m length) and transportation to site	02.09.05	278	49.67	100 Nos	13796
3	Alignment & Staking including demarcation of base line	02.09.04	1111	77.91	100 Nos	866
4	Digging of Pits in Ploughed Areas in June - July by adopting 50% of original rate of digging of pits of ordinary soil b) 45 cm ³ pits	02.09.06	1111	9.28	each	10310
5	(a) Transportation of Planting Stock (including loading and unloading) up to a distance of 5 km (c) 20 X 30 cm (8"X12") bag plants	02.09.07	1333	173.49	100	2313
6	(b) Transportation of Planting Stock (including loading and unloading) more than 5 km distance and upto 25 km distance (c) 20 X 30 cm (8"X12") bag plants	02.09.08	1333	6.75	100	2700
7	Internal transportation to planting points on head loads (c) 20 X 30 cm (8"X12") bag plants	02.09.10	1333	123.84	100	1651
8	PLANTING: No Eucalyptus, not even mixed with bamboo, shall be planted in CA area. Only indigenous secondary hardwood species and its associates mixed with local NTFP species shall be planted in CA areas. <i>The minimum height of the planting stock to be planted 0.75 - 1m height (excluding the height of the bag)</i> <i>Planting in 45 cm³ Pit</i>	02.09.13	1111	381.54	100	4239
9	Replacement of casualties 20% during raising and 25% in 1st year (In case of Eucalyptus 10% during raising and no casualty replacement for further maintenance (50% of rate of original pitting rate during raising year & 100% during subsequent years. planting, transportation and internal transportation as prescribed above) 20% of 1111 = 222 Plants Total Replacement plants 222 Cost of Pit 222x9.28=2060.16 Transport Up to 5 Kms 222x1.7349=385.1478 beyond 5 Kms 222x0.0675=14.985 Internal Transport 222x1.2384=274.9248 Planting 222x3.8154=847.0188 Total: 3582.236	02.09.15	222	16.14	each	3585
10	Cost of chemicals and fertilizers (50 gm SSP for basal dressing, 20 gm DAP after planting for 30 cube cm and 45 cub cm pits.	02.09.16	22	20.00	each	444
11	a) Circular weeding to a radius of 0.50 m around the plant (during July - Aug)	02.09.18	1111	108.98	100	1211
12	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.09.17	1111	34.25	100	381
13	b) Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (during Nov - Dec.)	02.09.19	1111	572.33	100	6359
14	Inter-ploughing (during November) the effective (excluding unsuitable patches) plantation area across the slope to a depth of 30 cm with Heavy-duty Tractor of 55 HP and above with Firm Mould Board (FMB) plough	02.09.20	1	2810.7	Ha	2810.7
15	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation: One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	02.09.24	9	8017.00	Month	72153
16	Formation of New Fire lines of 5.00 m width and cleaning of old fire lines if not maintained for last 5 years including burning.	03.01.04	1000	717.14	100 rmt	7171
17	Contingencies, Journals, implements etc.,			LS		3501
Total:						138000

255

138000 / Ha

Advance operations including seedling cost	39000
Raising of Plantation	138000
Raising of Plantation for 2018-19	151800
	1.518

A) Estimate for 1st Year Maintenance 1 Ha SMM						
Esp: 3m x 3 m		1111 plants		1 ha	2018-19	
Sl. No.	Description of work	FSR No.	Qty Nos	Rate	Unit	Amount
1	Replacement of casualties 25% during raising year.(50% of rate of original pitting rate during raising year & 100% during subsequent years. planting, transportation and internal transportation as prescribed above) 25% of 1111 = 278 Plants Total Replacement plants 278 Cost of Pit 278x9.28=2579.84 Transport Up to 5 Kms 278x1.7349=482.3022 beyond 5 Kms 278x0.0675=18.765 Internal Transport 278x1.2384=344.2752 Planting 278x3.8154=1060.6812 Total: 4485.8636	02.10.01	278	16.14	each	4486
2	Circular weeding to a radius of 0.50 m around the plant during raising year (July - Aug)	02.10.02	1111	108.98	100	1211
3	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant during Nov - Dec	02.10.02	1111	572.33	100	6359
4	Inter-ploughing (during September) the effective plantation area (excluding unsuitable patches) across the slope to a depth of 30 cm with Heavy-duty Tractor of 55 HP and above with Firm Mould Board (FMB) plough. This operation shall be carried out after Mahaveera uprootal is completed. Inter-ploughing should not be used as a means of Mahaveera uprootal.	02.10.05	1	2048.90	Ha	2049
5	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning	03.03.07	600	530.48	100	3183
6	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	02.10.06	1111	108.35	100	1204
5	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; one more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped.	02.10.09	12 months	8017.00	month	96204.00
6	Contingencies					3305.00
TOTAL						118000

Say 118000
118000
129800
1.298

For escalation for 2018-19 10%

B) Estimate for 2nd Year Maintenance 1 Ha - SMM						
Esp: 3m x 3 m		1111 plants		1 Ha	2018-19	
Sl. No.	Description of work	FSR No.	Qty Nos	Rate	Unit	Amount
1	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	02.11.01	1111	572.33	100	6359
2	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	02.11.02	1111	108.35	100	1204
3	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning	03.03.07	600	530.48	100	3183
4	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; one more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped.	02.11.05	12 months	8017.00	month	96204.00
5	Contingencies					3050.76
TOTAL						110000

Say 110000
110000

C) Estimate for 3rd Year Maintenance 1 Ha - SMM

Esp: 3m x 3 m		1111 plants		1 ha	2018-19	
Sl. No.	Description of work	FSR No.	Qty Nos	Rate	Unit	Amount ₹
1	2	3	4	5	6	7
1	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	02.11.01	1111	572.33	100	6359
2	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	02.11.02	1111	108.35	100	1204
3	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning	03.03.07	600	530.48	100	3183
4	Cost of Protection: One Watcher is allowed for 10-30 ha, plantation; one more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped.	02.11.05	12 months	8017.00	month	96204.00
5	Contingencies					3050.76
TOTAL						110000.00

Say 110000.00

99.0099

110000

For escalation for 2018-19 10%

132000

1.320

Sd/-
District Forest Officer
Mahabubnagar.