

BOQ for Block-A(40 MW site) and Block-B(25MW site)								
Tender Ref. No.:HY/PESD/PUR/SOLAR-ROAD/NLC-TN/001					Dt: 08.11.2016			
Name of work:Construction of Road, Drain, Culverts and Associated civil works for 1 x 65 MW of NLC at Tamilnadu.								
S. NO	DESCRIPTION	UNIT	Total		Block-A		Block-B	
			QUANTITY	Weightage%	QUANTITY 40MW site	Weightage% 40MW, Block-A	QUANTITY 25MW site	Weightage% 25MW, Block-B
A.	ROAD WORKS							
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil	cum	14450.00	3.62	9275.00	2.32	5175.00	1.30
2	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm. depth, dressing to camber and consolidating with road roller to achieve 95% or more of standard proctor's MDD , including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	sqm	28900.00	3.43	18550.00	2.20	10350.00	1.23
3	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	cum	60.00	0.02	30.00	0.01	30.00	0.01
4	Banking excavated earth/ moorum in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes to achieve 95% or more of standard proctor's MDD and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 500 m and lift upto 1.5 m (All kinds of soil)	cum	20.00	0.02	10.00	0.01	10.00	0.01
5	Construction of granular sub-base by providing close graded/coarse graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge. With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30.	cum	40.00	0.16	20.00	0.08	20.00	0.08
6	Supplying and stacking at site.90 mm to 45 mm size stone aggregate	cum	9876.00	19.31	6321.00	12.36	3555.00	6.95
7	Supplying and stacking at site.63 mm to 45 mm size stone aggregate	cum	20.00	0.04	10.00	0.02	10.00	0.02
8	Supplying and stacking at site.53 mm to 22.4 mm size stone aggregate.(BG metal)	cum	7803.00	17.98	5008.50	11.54	2794.50	6.44
9	Supplying and stacking at site.Stone screening 13.2 mm nominal size (Type A)	cum	1975.20	5.12	1264.20	3.28	711.00	1.84
10	Supplying and stacking at site.Stone screening 11.2 mm nominal size (Type B)	cum	1560.60	4.30	1001.70	2.76	558.90	1.54
11	Supplying and stacking of gravel at site of required grading as per direction of Engineer-in-charge. (binding material)	cum	5834.088	7.05	3738.735	4.52	2095.335	2.53
12	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rollingwith 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	cum	27048.88	17.28	17334.14	11.07	9714.74	6.21
13	Supply, providing and spreading sand to a thickness of 3mm and rolling as top coarse for road work as per specification and direction of Engineer-in-charge.	sqm	28900.00	0.62	18550.00	0.40	10350.00	0.22
B.	DRAIN/ CULVERTS AND ASSOCIATED WORKS							
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed as per direction of Engineer-in -charge. All kinds of soil	cum	200.00	0.06	100.00	0.03	100.00	0.03
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	cum	13400.00	3.40	8400.00	2.13	5000.00	1.27

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S. NO	DESCRIPTION	UNIT	Total		Block-A		Block-B	
			QUANTITY	Weightage%	QUANTITY 40MW site	Weightage% 40MW, Block-A	QUANTITY 25MW site	Weightage% 25MW, Block-B
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 fine sand : 6 graded stone aggregate 40 mm nominal size)	cum	10.00	0.08	5.00	0.04	5.00	0.04
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level1:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) Or Design mix as per instruction of Engineer-incharge	cum	144.00	1.26	72.00	0.63	72.00	0.63
5	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in. cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	2400.00	1.94	1200.00	0.97	1200.00	0.97
6	Cement plaster 12 mm cement plaster of mix :1:6 (1 cement: 6 coarse sand)	sqm	2400.00	0.56	1200.00	0.28	1200.00	0.28
7	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works upto plinth level.	cum	110.00	1.11	80.00	0.81	30.00	0.30
8	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars.	kg	8800.00	1.07	6400.00	0.78	2400.00	0.29
9	Centering and shuttering including strutting, propping etc. and removal of form for :Foundations, footings , bases of columns, cover slabs etc. for mass concrete	sqm	180.00	0.06	90.00	0.03	90.00	0.03
10	Centering and shuttering including strutting, propping etc. and removal of form for : Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc	sqm	100.00	0.06	50.00	0.03	50.00	0.03
11	Centering and shuttering including strutting, propping etc. and removal of form for : Suspended floors, roofs, landings, balconies and access platforms	sqm	100.00	0.06	50.00	0.03	50.00	0.03
12	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : 600 mm dia. R.C.C. pipe	meter	24.00	0.06	12.00	0.03	12.00	0.03
13	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : 900 mm dia. R.C.C. pipe	meter	48.00	0.16	24.00	0.08	24.00	0.08
14	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : 1200 mm dia. R.C.C. pipe	meter	48.00	0.26	24.00	0.13	24.00	0.13
15	Carriage and disposal of excavated earth/surplus earth as per site condition/requirement as per direction of Engineer-in -charge. including loading, unloading and stacking up to 5 KM	cum	200.00	0.04	100.00	0.02	100.00	0.02
16	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil	100 SQM	6050.00	10.87	3150.00	5.65	2900.00	5.22
	Total Weightage (in percentage)		100.00		62.24		37.76	

Annexure - A of NIT

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	Note: 1.The amount for each items above for 40 MW site, Block-A and 25 MW site, Block-B shall be worked out seperately by multiplying the derived rate (based on L-1 bidder's total quoted price(Total cost to BHEL)) with corresponding quantities of respective items of BOQ as above. 2.The rate and amount are inclusive of all applicable taxes, except for the service tax. For details of taxes, clause no. 8.0 of the TCC will be applicable.							