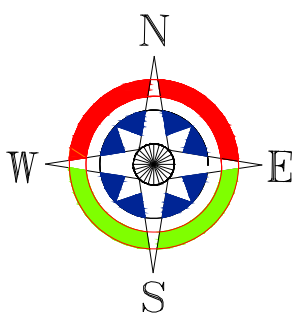


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GENERAL LAYOUT OF PV PLANT

00	I	05-Dec-25	KMQ	MWN	AGR	ZAK	FOR REVIEW
Rev	Class	Date	Dwn	Chkd	Rwd	Aprd	Description
CLIENT			OWNER ENGINEER			EPC CONTRACTOR	
			Logo is awaited				
PROJECT: NOTSI 475MW SOLAR PHOTOVOLTAIC PROJECT							
PROFESSIONAL ENGINEER:		NAME			NUMBER		
PROJECT	ISSUER	AREA	DISCIPLINE	TYPE	SEQ.	REV. NO.	
NSI	MNA	00	ER	DWG	001	00	
SIZE	DRAWING TITLE:						GENERAL LAYOUT OF PV PLANT
A0							
SCALE							
1:1							
SHEET NO.							
1/2							OR CODE AND REVIEW STATUS



PV PLANT BLOCK WISE SEGREGATION										NOTES										
BLOCK	INVERTER	PV MODULE CAPACITY	STRINGS	PV MODULES PER STRING	NO OF STRINGS	DC CAPACITY kWp	DC-AC RATIO			1.	ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.									
B-1	2	720	392	10,976	28	7902.7	1.10			2.	THIS LAYOUT IS PRELIMINARY AND BASED ON THE AVAILABLE DATA. IT MAY BE CHANGED DURING DETAIL ENGINEERING AS PER ACTUAL SITE CONDITIONS.									
B-2	2	720	388	10,864	28	7822.1	1.09			3.	THE TRACKER DETAILS ARE PRELIMINARY AND MAY BE CHANGED DURING DETAIL DESIGN PHASE ACCORDING TO VENDOR DRAWINGS.									
B-3	2	720	393	11,004	28	7922.9	1.10			4.	SPACE OF 5 METER IS PROVIDED BETWEEN FACILITY FENCE AND PERIMETER ROADS FOR FIRE-BREAK.									
B-4	2	720	391	10,948	28	7882.6	1.10			5.	THE LAYOUT IS BASED ON FLAT SURFACE WHILE DUE TO TERRAIN DIFFERENCE AT SITE SOME DIMENSIONS MAY SUBJECT TO ADJUSTMENTS.									
B-5	2	720	387	10,836	28	7801.9	1.08			6.	THE MINIMUM TURNING RADIUS HAS BEEN SET AT 12 METERS FOR INTERNAL ROADS AND 15 METERS FOR EXTERNAL ROADS.									
B-6	2	720	393	11,004	28	7922.9	1.10			7.	FACILITY OUTER BOUNDARY IS MAINTAINED AT A 1-METER OFFSET FROM THE ACTUAL PLANT BOUNDARY FOR SAFETY PURPOSES.									
B-7	2	720	389	10,892	28	7842.4	1.09			8.	THE ESKOM TOWERS LOCATIONS ARE INDICATIVE AS TRAVERSED FROM THE GOOGLE EARTH. HOWEVER THE EXACT GEOREFERENCED LOCATIONS TO BE INFORMED BY CLIENT.									
B-8	2	720	388	10,864	28	7822.1	1.09			9.	OHTL TOWER SHADOW IS ASSUMED BASED ON 50M TOWER HEIGHT. THIS SHADOW IS SUBJECT TO CHANGE BASED ON ACTUAL TOWERS HEIGHT.									
B-9	2	720	388	10,864	28	7822.1	1.09			TECHNICAL SPECIFICATIONS										
B-10	2	720	391	10,948	28	7882.6	1.10			STRUCTURE	TYPE		TLT	NUMBER						
B-11	2	720	391	10,948	28	7882.6	1.10				1P x 28 E-W TRACKER		±60°	454						
B-12	2	720	392	10,976	28	7902.7	1.10				1P x 56 E-W TRACKER		±60°	726						
B-13	2	720	389	10,892	28	7842.4	1.09				1P x 84 E-W TRACKER		±60°	9,616						
B-14	2	720	390	10,920	28	7862.4	1.09			PV MODULES	TYPE		POWER	NUMBER						
B-15	2	720	393	11,004	28	7922.9	1.10				BIFACIAL		720 Wp	861,112						
B-16	2	720	392	10,976	28	7902.7	1.10			STRINGS	PV MODULES PER STRING		NUMBER	30,754						
B-17	2	720	388	10,864	28	7822.1	1.09				28		30,754							
B-18	2	720	388	10,864	28	7822.1	1.09			INVERTERS	TYPE		N-POWER	NUMBER						
B-19	2	720	393	11,004	28	7922.9	1.10				CENTRAL INVERTER@40°		3597 kW _{dc}	158						
B-20	2	720	389	10,892	28	7842.4	1.09			TRANSFORMER STATION	TYPE		POWER	NUMBER						
B-21	2	720	392	10,976	28	7902.7	1.10				0.66/33KV MV TRANSFORMER STATION@40°		7.19 MVA	79						
B-22	3	720	392	10,976	28	7902.7	1.10			GEOMETRIC DATA	TRACKER CONFIG.		PITCH	PV PLANT AREA						
B-23	2	720	393	11,004	28	7922.9	1.10				E-W TRACKER		7.00 m	10,857,108 m ²						
B-24	2	720	393	11,004	28	7922.9	1.10			TOTAL DC POWER:		620.00	MW _{dc}							
B-25	2	720	390	10,920	28	7862.4	1.09			TOTAL AC POWER (INVERTER LEVEL@40°):		568.32	MW _{ac}							
B-26	2	720	393	11,004	28	7922.9	1.10			TOTAL AC POWER (GRID LEVEL):		475.50	MW _{ac}							
B-27	2	720	391	10,948	28	7882.6	1.10			PV PLANT PARAMETERS										
B-28	2	720	393	11,004	28	7922.9	1.10			NO	NAME		UNIT	NO						
B-29	2	720	387	10,836	28	7801.9	1.08				1		TOTAL PROPERTY AREA	m ²	10,948,605					
B-30	2	720	393	11,004	28	7922.9	1.10				2		TOTAL PV PLANT AREA	m ²	10,857,108					
B-31	2	720	393	11,004	28	7922.9	1.10				3		TOTAL PV PLANT BOUNDARY	m	21,770					
B-32	2	720	390	10,920	28	7862.4	1.09			4		PV PLANT ROAD (4m WIDE)	m	48,677						
B-33	2	720	392	10,976	28	7902.7	1.10			ABBREVIATIONS										
B-34	2	720	390	10,920	28	7862.4	1.09			PV	PHOTOVOLTAIC		kVA	KILO VOLT AMPERE						
B-35	2	720	390	10,920	28	7862.4	1.09				DC		DIRECT CURRENT	Wp	WATT PEAK					
B-36	2	720	390	10,920	28	7862.4	1.09			AC	ALTERNATING CURRENT		N-POWER	NOMINAL POWER						
B-37	2	720	390	10,920	28	7862.4	1.09				MVA		MEGA VOLT AMPERE	m	METER					
B-38	2	720	390	10,920	28	7862.4	1.09			MW	MEGA WATT		mw	MEDIUM VOLTAGE						
B-39	2	720	390	10,920	28	7862.4	1.09				kW		KILO WATT	MW _{dc}	MEGA WATT PEAK (STC)					
B-40	2	720	390	10,920	28	7862.4	1.09			kV	KILO VOLT		MW _{ac}	MEGA WATT AC POWER						
B-41	2	720	390	10,920	28	7862.4	1.09				1P		SINGLE PORTRAIT	O&M	OPERATIONS AND MAINTENANCE					
B-42	2	720	390	10,920	28	7862.4	1.09			LEGEND										
B-43	2	720	388	10,864	28	7822.1	1.09			NO	SYMBOL		DESCRIPTION							
B-44	2	720	387	10,836	28	7801.9	1.08				(1)		1P X 28 E-W TRACKER							
B-45	2	720	390	10,920	28	7862.4	1.09			(2)		1P X 56 E-W TRACKER								
B-46	2	720	390	10,920	28	7862.4	1.09			(3)		1P X 84 E-W TRACKER								
B-47	2	720	390	10,920	28	7862.4	1.09			(4)		MV TRANSFORMER STATION								
B-48	2	720	390	10,920	28	7862.4	1.09			(5)		WEATHER STATION								
B-49	2	720	388	10,864	28	7822.1	1.09			(6)		PV PLANT BOUNDARY LINE								
B-50	2	720	387	10,836	28	7801.9	1.08			(7)		FENCE								
B-51	2	720	387	10,836	28	7801.9	1.08			(8)		PV BLOCK BOUNDARY LINE								
B-52	2	720	390	10,920	28	7862.4	1.09			(9)		PV PLANT ROAD								
B-53	2	720	390	10,920	28	7862.4	1.09			(10)		FARMER ACCESS ROAD								
B-54	2	720	390	10,920	28	7862.4	1.09			(11)		EXTERNAL ACCESS ROAD								
B-55	2	720	390	10,920	28	7862.4	1.09			(12)		EXISTING ROAD								
B-56	2	720	390	10,920	28	7862.4	1.09			(13)		NO-GO AREA								
B-57	2	720	390	10,920	28	7862.4	1.09			(14)		TEMPORARY SITE FACILITY								
B-58	2	720	390	10,920	28	7862.4	1.09			(15)		O&M BUILDING								
B-59	2	720	387	10,836	28	7801.9	1.08			(16)		MAIN SUBSTATION AND SWITCHING STATION FACILITY								
B-60	2	720	390	10,920	28	7862.4	1.09			(17)		400KV TRANSMISSION LINE SERVIDUTE (HEIGHT OF TOWERS NOT PROVIDED)								
B-61	2	720	387	10,836	28	7801.9	1.08			(18)		765KV TRANSMISSION LINE SERVIDUTE								
B-62	2	720	392	10,976	28	7902.7	1.10			(19)		OHTL TOWER SHADOW								
B-63	2	720	366	10,248	28	7376.6	1.03			(20)		OHTL TOWER								
B-64	2	720	365	10,220	28	7358.4	1.02			(21)		TEMPORARY STORAGE AREA								
B-65	2	720	366	10,248	28	7376.6	1.03			(22)		GUARD ROOM								
B-66	2	720	365	10,220	28	7358.4	1.02			(23)		GATE								
TOTAL 158											30,754	861,112		620.00	475.50					