

**Substation Package for Extension of 400kV Tumkur Pooling station (Pavagada) (including transformer & Reactor), Extension of 400/220kV Mysore Substation and Extension of 400/220kV Tumkur (Vasantnarsapur) (Including Transformer) under Transmission System for Ultra Megar Solar Power Park (2000MW) at Tumkur (Pavagada), Karnataka-Phase-II (Part -A)**

**Mandatory Spares - Extn of Mysore SS**

Sl. No.	Activity Description	Item Description	Unit	Qty.
		<b>Extn of Mysore SS</b>		
321	MANDATORY SPARE	Open / Close contactor assembly, timers, key interlock push buttonswitch & auxiliary switches for 420kV Isolator	SET	1
322	MANDATORY SPARE	Limit switch for 420kV Isolator	SET	2
323	MANDATORY SPARE	Corona shield rings for 420kV Isolator	SET	3
324	MANDATORY SPARE	Terminal pads & connectors for 420kV Isolator	EA	3
325	MANDATORY SPARE	336kV Surge Arrester (1-phase)	EA	1
326	MANDATORY SPARE	Numerical distance relay (Main-I) withinbuilt DR and fault locator,OV prot.,software	SET	1
327	MANDATORY SPARE	Reactor differential protection relay	SET	1
328	MANDATORY SPARE	Restricted earthfault relay type with non-linear resistor andassociated software in case of numerical relay	EA	1
329	MANDATORY SPARE	Numerical Reactor Backup Impedance relay	EA	1
330	MANDATORY SPARE	Ethernet switch of each type	SET	1
331	MANDATORY SPARE	Set of Cards/prints for carrier terminal	SET	2
332	MANDATORY SPARE	Set of Cards/prints for Protection coupler	SET	2
333	MANDATORY SPARE	Deluge valve (1 No. of each size)	SET	1
334	MANDATORY SPARE	Trip coil with resistor for 420kV SF6 Circuit Breaker	SET	2
335	MANDATORY SPARE	Closing coil with resistor for 420kV SF6 Circuit Breaker	EA	1
336	MANDATORY SPARE	Terminal pad for 420kV SF6 Circuit Breaker	EA	2
337	MANDATORY SPARE	Molecular filter for 420kV SF6 Circuit Breaker	EA	2
338	MANDATORY SPARE	Corona rings (1 No of each type) for 420 kV Circuit Breaker	SET	1
339	MANDATORY SPARE	Relays, Power contactors, SFU, limit switches, push buttons, timers &MCB etc. (1 No of each type) for 420kV Circuit Breaker	SET	1
340	MANDATORY SPARE	Pressure switches (1 No. of each type) for 420kV SF6 Circuit Breaker	SET	1
341	MANDATORY SPARE	Aux. Switch/contact assembly for 420kV SF6 Circuit Breaker	SET	1
342	MANDATORY SPARE	Rubber gasket, O rings and seals for SF6 gas (complete replacement forone 420kV SF6 Circuit Breaker)	SET	1
343	MANDATORY SPARE	One Pole of 420kV, 2000A, 40kA SF6circuit breaker including closingresistor,grading capacitor (ifapplicable),pole column,interrupter,operating mechanism andMarshalling Box but without supportstructure	SET	1
344	MANDATORY SPARE	420 kV, 4400 pF Capacitive Voltage Transformer (1-Phase)	EA	1
345	MANDATORY SPARE	Grading capacitors (if applicable) for 420kV SF6 Circuit Breaker	EA	1
346	MANDATORY SPARE	COPPER CONTACT FINGERS FOR FEMALE & MALE CONTACTS OF 420KV DOUBLEBREAK ISOLATOR	SET	1
347	MANDATORY SPARE	NUMERICAL DISTANCE RELAY (MAIN II) WITH INBUILT DR AND FAULTLOCATOR,OV PROT., SOFTWARE	SET	1
348	MANDATORY SPARE	One Complete Pole of Double BreakIsolator including support Insulatorwith 1 E/s (excluding structure) withMotor Operating Mechanism for 420kV,2000A, 40kA main Isolator and E/S	EA	1
349	MANDATORY SPARE	420 kV, 2000A, 40KA, 1-Phase CurrentTransformer with 120% extended current rating	EA	1

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**Mandatory Spares - Extn of Mysore SS**

Sl. No.	Activity Description	Item Description	Unit	Qty.
350	Mandatory Spares-Reactor	Buchholz Relay (Main Tank) complete with float and contacts for Reactor	SET	1
351	Mandatory Spares-Reactor	Local and Remote WTI/OTI with sensing device and contact (each) for Reactor	SET	1
352	Mandatory Spares-Reactor	Local and Remote WTI/OTI with sensing device and contact (each) for Reactor	SET	1
353	Mandatory Spares-Reactor	SPARES INSULATING OIL TO BE HANDED OVER TO OWNER AFTER COMMISSIONING	KL	10
354	Mandatory Spares-Reactor	420KV, 800A RIP BUSHING WITH METAL PARTS AND GASKETS	EA	1
355	Mandatory Spares-Reactor	145KV, 800A RIP BUSHING WITH METAL PARTS AND GASKETS	EA	1
356	Mandatory Spares-PLCC	Set of cards/prints for carrier terminal	SET	2
357	Mandatory Spares-PLCC	Set of cards/prints for protection coupler	SET	2