

RFQ No. UPKM00053

Sl. No.	Vendor Query	BHEL Reply
1	Dimension Drawing and Location on the power cabinet	Source and Load bridge panels are 5250mm width x 1200mm depth x 2500mm height each. Controller cubicle envisaged in the tender will be mounted adjacent to these panels.
2.	Dimension Drawing of Thyristor mounting	Thyristor mounting drawing on heat sink is not required at this stage. The mounting of the gate circuit module (to be supplied by vendor) will be finalized during detailed engineering.
3.	Circuit Diagram	Schematic diagram of thyristor (3-688-08-50001) has been given in the tender. All other details can be discussed during detailed engineering.
4.	Current Transducer data sheet	For current feedback CTs are being provided on both source and load side on two phases with secondary current rating of 0.5 Amps. The same can be used for current feedback with suitable transducer. (to be supplied by vendor)
5.	Redundancy of control section	No specific redundancy of control section is required.
6.	In page 48 of Tender specification (purchase specification No. P.S.NO.PS/445/2547 – page 03/13) Motor/machine and pump data rated output under package 11 mentioned as 4x134.8MW pump. In page 74 of tender specification Pranhita Chevella lift irrigation scheme system details pump capacity for package 11 is mentioned as 5x88.5MW pump	Data given in page 48 of Tender specification (Purchase Specification No. P.S.NO.PS/445/2547 – page 03/13) is correct. Rating of package 11 is 4x134.8 MW. Revised Pages 74 to 76 attached.
7.	In page 48 of Tender specification (purchase specification No. P.S.NO.PS/445/2547 – page 03/13) Motor/machine and pump data rated voltage for package 8 and 11 mentioned as 13.9kV. In page 74 of tender specification Pranhita Chevella lift irrigation scheme system details rated voltage for package 8 and 11 is mentioned as 11kV.	Pump voltage rating for package 8 and 11 are 13.8kV (not 13.9kV) as per page 48 of Tender document. However SFC input voltage for all packages are 11kV only. The values of these voltages do not affect the controller specifications. Revised Pages attached as per point 6 above.

PRANHITA CHEVELLA LIFT IRRIGATION SCHEME

System Details:

Parameter	Stage 6	Stage 8	Stage 10	Stage 11
Pump Capacity	7x127.6MW Pumps (11kV)	7x139MW Pumps (13.8kV)	4x106MW Pumps (11kV)	4x134.8MW Pumps (13.8kV)
Number of SFCs	3	3	3	3
SFC Input Voltage	11kV $\pm$ 10%	11kV $\pm$ 10%	11kV $\pm$ 10%	11kV $\pm$ 10%
Fault Level	40kA for 3 sec	40kA for 3 sec	40kA for 3 sec	40kA for 3 sec
Ambient temperature	50°C	50°C	50°C	50°C
Design ambient	50°C	50°C	50°C	50°C
Humidity	98%	98%	98%	98%

Motor/Pump Data:

Parameter	Stage 6	Stage 8	Stage 10	Stage 11
Voltage, Power and Speed	7x127.6MW Pumps (11kV), 200rpm SFC 6940kW	7x139MW Pumps (13.8kV), 214.29rpm SFC 7000kW	4x106MW Pumps (11kV), 200rpm SFC 6475kW	4x134.8MW Pumps (13.8kV), 214.29rpm SFC 7000kW
Torque/Speed Curves	Available	Available	X	X
Inertia values (Total InertiaT-m ²)	5435	5190	4740	2770
Starting time	300s	300s	300s	300s
Direct axis reactance Xd	1.18	1.34	X	1.317
Direct axis transient reactance Xdd (X'd)	0.28	0.28	X	0.279
Direct axis sub transient reactance Xddd (X''d)	0.22	0.19	X	0.178
Quadrature axis reactance Xq	0.79	0.87	X	0.874
Quadrature axis transient reactance X'q	0.79	0.86	X	X
Quadrature axis sub transient reactance X''q	0.27	0.21	X	X

Excitation Data:

Parameter	Stage 6	Stage 8	Stage 10	Stage 11
Maximum Excitation Power Rating	525kW	444kW	504kW	441kW
Maximum Excitation Current Rating	1500A	1200A	1400A	1150A
Maximum Excitation Voltage Rating	350V	370V	360V	383V
Motor Field Current for Motor Starting	565A	420A	565A	420A
Motor Field Voltage for Motor Starting	110V	132V	110V	140V