

SPV Name: **POWERGRID Ghiror Transmission Limited**

(Formerly known as “Rajasthan IV 4A Power Transmission Limited”)

Project Name: **Transmission system for evacuation of power from Rajasthan REZ Ph -IV
(Part-4: 3.5 GW): Part A**

1. Augmentation with 765/400 kV, 2x1500 MVA Transformer (4th and 5th) at Barmer-I PS
 - 765/400 kV 1500 MVA ICTs- 2 Nos.
 - 765 kV ICT bays-2 Nos.
 - 400 kV ICT bays- 2 Nos.
2. Augmentation of 5x500 MVA (5th to 9th), 400/ 220 kV ICTs at Barmer-I PS
 - 400/220 kV 500 MVA ICTs- 5 Nos.
 - 400 kV ICT bays-5 Nos.
 - 220 kV ICT bays- 5 Nos.
3. 220 kV line bays (6 Nos.) for RE connectivity at Barmer-I PS
 - 220 kV line bays- 6 Nos
4. 400 kV Sectionalizer bay (1 set), 220 kV Sectionalizer bay (1 set) along with 220 kV BC (1 Nos.) and 220 kV TBC (1 Nos.) at Barmer-I PS
 - 400 kV Sectionalizer bay: 1 set
 - 220 kV Sectionalizer bay: 1 set
 - 220 kV BC (1 Nos.) bay and 220 kV TBC (1 Nos.) bay
5. STATCOM (2x±300 MVar) along with MSC (4x125 MVar) and MSR (2x125 MVar) along with 2 Nos. 400 kV bays at Barmer-I PS
 - STATCOM (2x±300 MVar) MSC (4x125 MVar) and MSR (2x125 MVar)
 - 400kV bays at Barmer-I PS – 2 Nos.
6. Fatehgarh-IV PS (Sec-2) – Barmer-I PS 400 kV D/C line (Quad)
 - 400 kV line bays at Fatehgarh-IV PS (Sec-2) – 2 Nos.
 - 400 kV line bays at Barmer-I PS – 2 Nos
7. Establishment of 765/400 kV, 2x1500 MVA S/s at suitable location near Ghiror (Distt. Mainpuri) along with 2x240 MVar (765 kV) and 2x125 MVar (420 kV) bus reactor at Ghiror S/s (UP)

Ghiror S/s- AIS

- 765/400 kV 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit)
- 765 kV ICT bays-2 Nos.
- 400 kV ICT bays- 2 Nos.
- 765kV line bays: 8 Nos. (for LILO of Aligarh (PG)-Orai (PG) D/c, LILO of Agra (PG) – Fatehpur (PG) S/C and 765 kV interconnection with Dausa S/s)
- 400 kV line bays: 2 Nos. (for 400 kV interconnection with Firozabad (UPPTCL) S/s)
- 240 MVar Bus Reactor-2 Nos. (7x80 MVar, including one spare unit)
- 765 kV Bus reactor bays-2 Nos.

- 125 MVAR Bus Reactor-2 Nos.
- 400 kV Bus reactor bays- 2 Nos. 110 MVAR spare reactor unit (single phase)-1 No.

Future provisions at Ghiror S/s: Space for

- 765/400 kV ICTs along with bays- 4
 - 765 kV line bays along with switchable line reactors – 6
 - 765kV Bus Reactor along with bay: 1 No.
 - 400 kV line bays along with switchable line reactor –6
 - 400 kV Bus Reactor along with bays: 1 No.
 - 400kV Sectionalizer bay: 1 set
 - 400/220 kV ICT along with bays -4 Nos.
 - 220 kV line bays for drawl -6 Nos.
 - 220 kV Sectionalizer bay: 1 set
 - 220 kV BC (2 Nos.) bays and 220 kV TBC (2 Nos.) bays
 - STATCOM (2x±300 MVAR, 4x125 MVAR MSC, 2x125 MVAR MSR) along with 400 kV bays (2 Nos.)
8. Dausa - Ghiror 765 kV D/C line along with 330 MVAR switchable line reactor at Ghiror end and 240 MVAR switchable line reactor at Dausa end for each circuit of Dausa - Ghiror 765 kV D/C line
 - 765 kV, 240 MVAR switchable line reactors at Dausa S/s end– 2 Nos.
 - 765 kV, 330 MVAR switchable line reactors at Ghiror S/s S/s end– 2 Nos.
 - Switching equipment for 765 kV, 240 MVAR switchable line reactors at Dausa S/s end – 2 Nos.
 - Switching equipment for 765 kV, 330 MVAR switchable line reactors at Ghiror S/s end – 2 Nos.
 9. LILO of both circuit of 765 kV Aligarh (PG) -Orai (PG) D/C line at Ghiror S/s along with 240 MVAR switchable line reactor for each circuit at Ghiror S/s end of 765 kV Ghiror -Orai (PG) D/C line
 - 765 kV, 240 MVAR switchable line reactors at Ghiror S/s end– 2 Nos.
 - Switching equipment for 765 kV, 240 MVAR switchable line reactors at Ghiror S/s end – 2 Nos.
 10. LILO of one circuit of 765 kV Agra (PG) – Fatehpur (PG) 2xS/C line at Ghiror along with 240 MVAR switchable line reactor at Ghiror end of 765 kV Ghiror -Fatehpur (PG) line
 - 765 kV, 240 MVAR switchable line reactors at Ghiror S/s end– 1 No.
 - Switching equipment for 765 kV, 240 MVAR switchable line reactor at Ghiror S/s end – 1 No.
 11. 400 kV Ghiror-Firozabad (UPPTCL) D/C line (Quad)
 12. 2 Nos. 765 kV line bays at Dausa S/s
 13. 2 Nos. 400 kV line bays at Firozabad (UPPTCL) S/s