

Name of SPV: **POWERGRID West Central Transmission Limited**

(Formerly known as “**Khavda V-A Power Transmission Limited**”)

Name of Project: **Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A**

1. Establishment of 3000 MW,  $\pm$  800 kV KPS2 (HVDC) [LCC] terminal station (2x1500 MW) (Bipole-1) along with associated interconnections with 400 kV HVAC Switchyard
2. Establishment of 3000 MW,  $\pm$  800 kV Nagpur (HVDC) [LCC] terminal station (2x1500 MW) (Bipole-1) along with associated interconnections with 400 kV HVAC Switchyard
3. Establishment of 3000 MW,  $\pm$  800 kV KPS2 (HVDC) [LCC] terminal station (2x1500 MW) (Bipole-2) along with associated interconnections with 400 kV HVAC Switchyard
4. Establishment of 3000 MW,  $\pm$  800 kV Nagpur (HVDC) [LCC] terminal station (2x1500 MW) (Bipole-2) along with associated interconnections with 400 kV HVAC Switchyard
5.  $\pm$ 800 kV HVDC Bipole line (Hexa lapwing) between KPS2 (HVDC) and Nagpur (HVDC) (1200 km) (with Dedicated Metallic Return) (capable to evacuate 6000 MW with overload as specified)
6. Establishment of 6x1500 MVA, 765/400 kV ICTs at Nagpur S/s along with 2x330 MVAR (765 kV) & 2x125 MVAR, 420 kV bus reactors along with associated interconnections with HVDC Switchyard.
  - 765/400 kV, 1500 MVA ICT-6 (3 on each 400 kV section) (19 single phase units including one spare unit)
  - 765 kV ICT bays- 6 Nos.
  - 400 kV ICT bays- 6 Nos. (3 on each section)
  - 330 MVAR 765 kV bus reactor-2 Nos.
  - 125 MVAR 420 kV bus reactor-2 Nos. (one on each section)
  - 765 kV reactor bay- 2 Nos.
  - 765 kV line bay- 4 Nos.
  - 400 kV reactor bay- 2 Nos. (one on each section)
  - 400 kV Bus sectionaliser - 1 Set
  - 110 MVAR, 765 kV, 1-ph reactor (spare unit for line/bus reactor) - 1 No.

#### **Future Provisions at Nagpur: Space for**

- 765/400 kV, 1500 MVA ICT- 4 (1 on 400 kV bus section-II & 3 on future 400 kV bus section-III)
- 765 kV line bays along with switchable line reactors – 10 Nos.
- 765 kV Bus Reactor along with bay: 2 No.
- 765 kV Sectionaliser bay: 1 -set
- 400 kV line bays along with switchable line reactor – 12 Nos.
- 400 kV Bus sectionaliser- 1 Set

- 400/220 kV ICT along with bays -9 Nos. (3 Nos. on 400 kV bus sections II & 6 Nos. on future bus section-III)
- 400 kV Bus Reactor along with bay: 4 No. (1 each on 400 kV bus sections I & II and 2 on future 400 kV bus section-III)
- 220 kV line bays: 16 Nos.
- 220 kV Sectionalization bay: 2 set
- 220 kV BC & TBC: 3 Nos.
- 80 MVAR, 765 kV, 1-ph reactor (spare unit for line reactor)-1

7. LILO of Wardha – Raipur 765 kV one D/c line (out of 2xD/c lines) at Nagpur

8. Installation of 240 MVAR switchable line reactor at Nagpur end on each ckt of Nagpur – Raipur 765 kV D/c line

- 240 MVAR, 765 kV switchable line reactors- 2 Nos. (at Nagpur end)
- Switching equipment for 765 kV line reactor- 2 Nos. (at Nagpur end)
- 80 MVAR, 765 kV, 1-ph reactor (spare unit for line reactor)-1 No.