## Annexure-IV

## A. Tr. System in Rajasthan for LTA applications at Fatehgarh (TBCB)

1) Establishment of $765 / 400 \mathrm{kV}$, 3 X 1500 MVA , pooling station at suitable location near Fatehgarh in Jaisalmer Distt (Fatehgarh-II PS)
2) Establishment of $765 / 400 \mathrm{kV}, 2 \times 1500 \mathrm{MVA}$ pooling station at suitable location near Phalodi/ Bhadla in Jodhpur (Bhadla-II PS)
3) Establishment of $765 / 400 \mathrm{kV}, 2 \times 1500 \mathrm{MVA} \mathrm{S} / \mathrm{s}$ at suitable location near Khetri
4) LILO of both circuits of Fatehgarh (TBCB) - Bhadla (PG) $765 \mathrm{kV} \mathrm{D/c} \mathrm{line} \mathrm{(op}$.at 400 kV ) at Fatehgarh-II PS so as establish Fatehgarh (TBCB)-Fatehgarh-II 765kV D/c line (to be op. at 400 kV ) and Fatehgarh-II- Bhadla (PG) 765 kV D/c line
5) Charging of Fatehgarh-II PS-Bhadla section at 765 kV level
6) LILO of both ckts of 765 kV Ajmer - Bikaner D/c line at Bhadla-II PS
7) Fatehgarh-II PS - Bhadla -II PS 765 kV D/c line
8) Bhadla-II PS - Bhadla (PG) 400 kV D/c Line (Twin HTLS)
9) Bikaner(PG) - Khetri 765 kV D/c line
10) Khetri - Jhatikara 765 kV D/c line
11) Khetri - Sikar (PG) 400 kV D/c line (twin AL59)
12) Augmentation with $765 / 400 \mathrm{kV}$, $1 \times 1500 \mathrm{MVA}$ transformer ( $\left(^{\text {rd }}\right)$ at Moga $\mathrm{S} / \mathrm{s}$
13) Augmentation with $1 \mathrm{x} 1000 \mathrm{MVA}, 765 / 400 \mathrm{kV}$ transformer ( $3^{\text {rd }}$ ) at Bhiwani (PG)
14) Ajmer (PG)- Phagi 765 kV D/c line
15) 1 x 125 MVAr (420kV), 2x240 MVar (765kV) Bus Reactor each at Fatehgarh-II PS, BhadlaII PS \& Khetri Substation
16) 1x240 MVAR Switchable Line reactors for each circuit at Jhatikara end of Khetri - Jhatikara 765 kV D/c line
17) $1 \times 240$ MVAr Switchable line reactor for each circuit at each end of Bikaner - Khetri 765 kV D/c line
18) $1 \times 330$ MVAr Switchable line reactor for each circuit at Bhadla-II PS end for Ajmer-BhadlaII PS 765 kV line (after LILO)
19) $1 \times 240$ MVAr Switchable line reactor for each circuit at Bhadla-II PS end for Bikaner-BhadlaII PS 765 kV line (after LILO)

## B. Tr. System in Rajasthan for LTA application at Bhadla (PG)

1) Establishment of $765 / 400 \mathrm{kV}, 2 \times 1500 \mathrm{MVA}$ pooling station at suitable location near Phalodi/ Bhadla in Jodhpur (Bhadla-II PS)
2) Establishment of $765 / 400 \mathrm{kV}, 2 \times 1500 \mathrm{MVA}$ S/s at suitable location near Khetri
3) Augmentation of transformation capacity at Bhadla (PG) by $400 / 220 \mathrm{kV}, 2 \mathrm{x} 500 \mathrm{MVA}$ (6th \& 7th) transformers
4) LILO of both ckts of 765 kV Ajmer - Bikaner D/c line at Bhadla-II PS
5) Bhadla-II PS - Bhadla (PG) 400 kV D/c Line (Twin HTLS)
6) Bikaner(PG) - Khetri 765kV D/c line
7) Khetri - Jhatikara 765 kV D/c line
8) Khetri - Sikar (PG) 400 kV D/c line (twin AL59)
9) Augmentation with $765 / 400 \mathrm{kV}, 1 \times 1500 \mathrm{MVA}$ transformer ( $3^{\text {rd }}$ ) at Moga $\mathrm{S} / \mathrm{s}$
10) Augmentation with $765 / 400 \mathrm{kV}, 1 \times 1000 \mathrm{MVA}$ transformer ( $3^{\text {rd }}$ ) at Bhiwani (PG)
11) Ajmer (PG)- Phagi 765 kV D/c line
12) $1 \times 125$ MVAr ( 420 kV ), $2 \times 240$ MVar ( 765 kV ) Bus Reactor each at Bhadla-II PS \& Khetri Substation
13) 1x240 MVAR Switchable Line reactors for each circuit at Jhatikara end of Khetri - Jhatikara 765 kV D/c line
14) $1 \times 240$ MVAr Switchable line reactor for each circuit at each end of Bikaner - Khetri 765 kV D/c line
15) $1 \times 330$ MVAr Switchable line reactor for each circuit at Bhadla-II PS end for Ajmer-BhadlaII PS 765 kV line (after LILO)
16) $1 \times 240$ MVAr Switchable line reactor for each circuit at Bhadla-II PS end for Bikaner-BhadlaII PS 765 kV line (after LILO)

## C. Tr. System in Rajasthan for LTA applications at Bikaner(PG)

1) Establishment of $765 / 400 \mathrm{kV}, 2 \times 1500 \mathrm{MVA} \mathrm{S} / \mathrm{s}$ at suitable location near Khetri
2) Bikaner(PG) - Khetri $\mathrm{S} / \mathrm{s} 765 \mathrm{kV}$ D/c line
3) Khetri - Jhatikara 765 kV D/c line
4) Khetri - Sikar (PG) 400 kV D/c line (twin AL59)
5) Augmentation with $765 / 400 \mathrm{kV}$, 1x1500MVA transformer ( $\left(^{\text {rd }}\right.$ ) at Moga $\mathrm{S} / \mathrm{s}$
6) $1 \times 125$ MVAr ( 420 kV ), $2 \times 240$ MVar ( 765 kV ) Bus Reactor at Khetri Substation
7) $1 \times 240$ MVAr Switchable line reactor for each circuit at each end of Bikaner - Khetri 765 kV D/c line
8) $1 \times 240$ MVAR Switchable Line reactors for each circuit at Jhatikara end of Khetri - Jhatikara 765 kV D/c line
