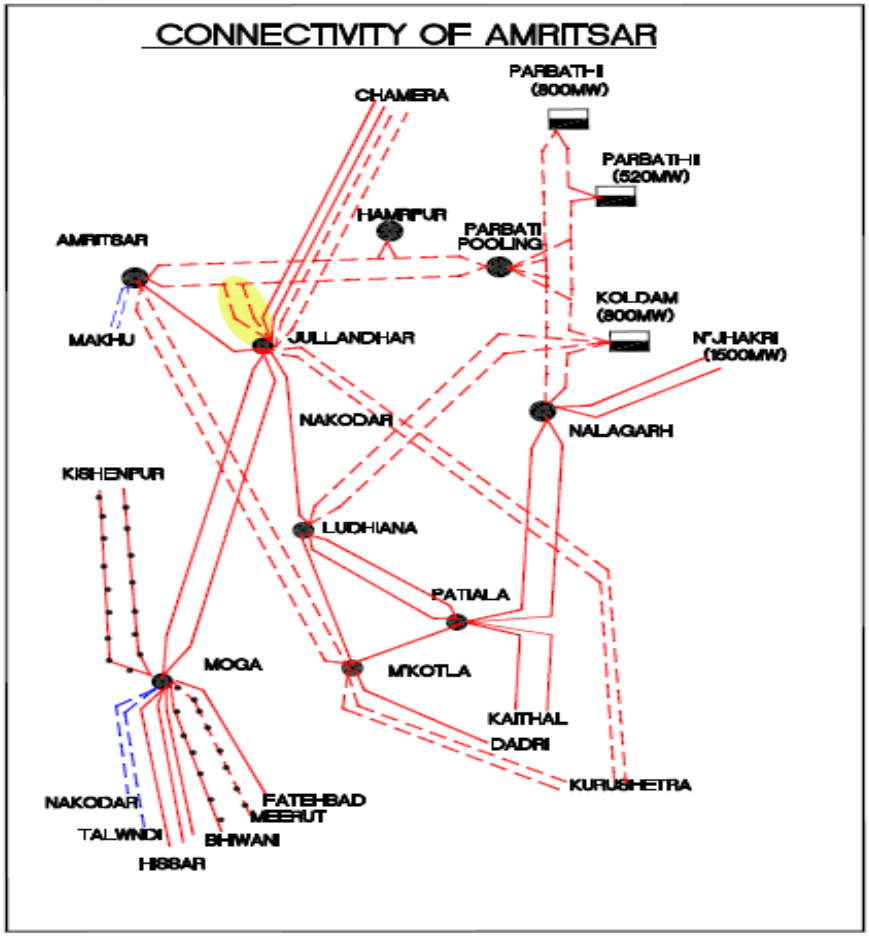
Additional Agenda-II - 32nd Standing Committee Meeting on Power System Planning in Northern Region

1. Strengthening of power supply to 400 KV, Amritsar S/s

Amritsar and Jallandhar are two major substation of POWERGRID in Punjab. 400/220kV, 2x315MVA Amritsar substation of POWERGRID is presently connected to the grid through 400kV Amritsar-Jallandhar S/c line. To meet the growing power demand of the area, augmentation of transformation capacity of Amritsar S/s by an additional 400/220kV, 1x500MVA, transformer has already been taken up. As a part of associated transmission system for Parbati-III HEP, a 400kV D/c line from Parbati Pooling Station to Amritsar is already under construction and 400kV, Kurushetra-Malerktla-Amritsar D/c line has been approved recently.

400/220kV, Jallandhar substation is connected to Chamera generation complex through 2 nos of 400kV D/c line and to Moga S/s through a 400kV D/c line. To augment the power supply to Jallandhar area, 400 kV, Kurushetra-Jallandhar D/c line (with one circuit via Nakodar) has been approved. The connectivity of these 400 kV substations is shown below:



It may be seen that under normal conditions, no problem is envisaged in supply of power to both substations. However under low hydro conditions, with revised reliability criteria of (n-1-1), under outage of both circuits of Amritsar-Malerkotla 400kV D/c line, the power supply to Amritsar S/s and nearby area would be mainly dependent on a 400kV S/c line from Jallandhar S/s. Here, it may also be mentioned that export of the order of 500MW to Pakistan is under active consideration of Government of India.

Considering the above, it is proposed to strengthen the interconnection between Jallandhar and Amritsar substations by LILO of one circuit of 400 kV, Parbati Pooling Station – Amritsar D/c line at Jallandhar substation. The arrangement would ensure the reliable supply to Amritsar area as per revised reliability criteria.

Members may discuss and concur.