

Live line work

- The history and development of live line maintenance can be traced back to the early 1920's. The first 500 kV line (Keystone Project) was constructed in New Jersey in the late 1960's. The importance placed on these 500 kV lines made it imperative that suitable methods be developed for their safe maintenance while energized. A special Task Force was convened to study and make recommendations

Live line considerations

- Continuity of service
- Live work (work on energized circuits) is the preferred method of maintenance where system integrity, system reliability, and operating revenues are at a premium and removal of the circuit from service could negatively impact the normal configuration of the transmission system
- Live work may also be beneficial in construction and storm damage repair
- radial lines to small municipalities that must remain energized, even during maintenance, to avoid disruption of service to essential facilities such as hospitals, law enforcement, fire departments, and intrusion alarms
- live work is necessary and unavoidable in some cases, such as stringing over or under energized circuits or adjacent to parallel energized circuits.

Live line considerations

- The four basic types of live work are:
 - 1. Gloving
 - 2. De-energized work
 - 3. Bare-handing (or contact work).
 - 4. Insulating tool work (or at-a-distance work)

Live line work

- The Bare Hand Technique came into practice because of three major reasons:
- 1. A lack of parallel systems, which demanded increased usage and expanded range of live line maintenance.
- 2. Tremendously enlarged conductors and fittings, requiring heavy and cumbersome conventional live line tools.
- 3. Rapidly increasing voltages of transmission lines, necessitating extended minimum working clearance distances.