

## Conductors

Conductors shall be selected with sufficient thermal capability to meet normal and emergency current ratings required for the project, **as specified by PJM in the RFP process (?)**. Normal operation refers to a continuous operating condition where no loss of conductor strength will occur. Emergency operation refers to a short-duration time period where the normal current rating is exceeded to meet temporary changes in system operating conditions. Conductors shall be selected so they will not lose more than **10% (?)** of strength over their life of service due to periodically exceeding normal operating conditions. Conductors shall also be designed to handle the heating induced by the anticipated fault currents it may experience during its service life.

Conductors shall be of adequate strength to meet required design loading conditions and sustain mechanical loads as specified in Section "X", while still meeting the minimum clearance requirements as discussed in Section "X".

Qualified conductors are those meeting all applicable ASTM standards for the materials included in the construction of the cable. Conductor connectors and accessories shall also meet applicable ANSI/NEMA standards, and shall have thermal capabilities no less than the conductor.

Conductor selection and configuration, including conductor size and the number of sub-conductors, shall take into consideration electrical system performance parameters such as voltage, stability, losses, impedance, corona, electric and magnetic fields, audible noise and TV and Radio interference.

Conductor selection shall consider short and long-term material availability locally and within the industry for purposes of maintenance and circuit restoration. Adequate quantities of material shall be stocked by the Designated Entity to allow restoration of the line in sufficient time **(one week?)**.

**Conductor sag – need to address common point?**

**Galloping & Vibration addressed elsewhere?**

References:

PJM TSDS V.A, Section 2

PJM TSDS VI.A

SPP Minimum Transmission Design Standards for Competitive Upgrades; January 23, 2015

RUS Bulletin 1724E-200, Section 9.4