Measure or estimate site condition severity, select candidate profile and creepage guidance, choose applicable laboratory test and test criteria, verify/adjust candidates is best way. Once the data are collected and evaluated two options are available:

1. Replacement of the existing insulators or bushings with ones of adequate creepage distance. However, changing insulator specifications to provide longer leakage paths results in increased weight and higher initial costs.

2. Installation of additional creepage boosters/extenders: These boosters/extenders are polymeric skirts internally coated with a specially formulated compound. When heated the skirt shrinks around and bonds onto an existing insulator shed increasing the effective diameter and creepage distance of the insulator. Addition of booster sheds also allows the ability to change the shed profile.

Water bridging is a continuous path of contaminated conductive moisture that causes arcing and flashover. Alternating shed profiles resist water bridging.

Pic show insulators with creepage boosters/extenders in substation.