

Low profile recloser solves cluttered pole clearance issue

Challenge

The utility faced an extensive replacement project for many of their old, oil-filled reclosers. Many installation sites where replacement was necessary incorporated very congested utility poles where maintaining clearances was an issue. The utility wanted to switch from oil reclosers to the latest solid dielectric designs. Ease of replacement and appearance were also key requirements.

Solution

G&W Electric was already an approved supplier of solid dielectric reclosers with their Viper[®]-S design utilizing conventional "L" modules (see Image 1 below). The "L" module design however, would require some major reconstruction work to maintain electrical clearances.

With G&W Electric's flexibility in providing different solid dielectric modules to customize solutions for both switchgear and recloser applications, an ideal recloser configuration was agreed upon. For this application, G&W Electric utilized the 38kV Viper-S reclosers with "Z" modules (see image 2) and SEL 351-R controls. The "Z"-shaped interrupter module creates a lower a shorter profile overhead recloser.

The "Z" module recloser with horizontal side bracket provides the reduced height needed to directly replace the existing oil-insulated recloser (see Image 2 and Image 2a) without any pole reconstruction or change of overhead line connections. The low profile design provided the most aesthetically pleasing solution compared to any other options considered by the utility. With this solution in place, the utility can continue to use the existing poles and maintain the necessary electrical clearances.

Image 3: Right is the low profile design of G&W Electric's 38kV recloser with "Z" modules permitted maintaining the electrical clearances while providing a direct replacement of the old oil-filled gear (right inset image 3a: 15kV) without any pole reconstruction.

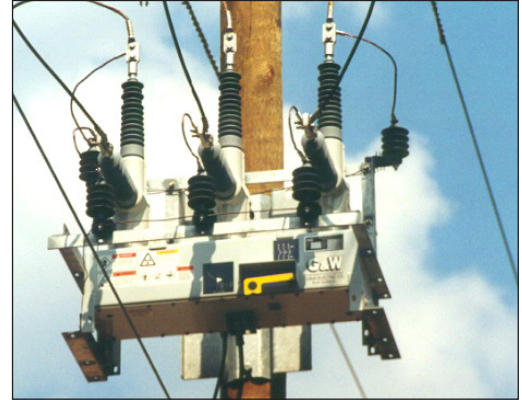


Image 1: G&W 27kV Viper-S recloser with "L" modules.



Image 2: G&W 38kV Viper-S recloser with "Z" modules.

