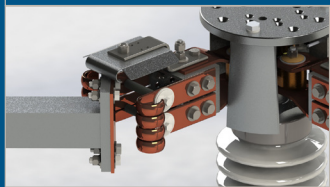


# TIPS TO ENSURE LONG TERM ADJUSTMENT RELIABILITY OF TRANSMISSION LINE SWITCHES

A key component of the transmission line is the disconnect switch which is used to isolate the faulted sections and reconfigure transmission grids to balance demand for power. The impact of a switch that has not operated properly is significant both in the potential of significant revenue loss due to outage times and the increased in operations and maintenance spending. Often caused by improper installation, much of the issues faced by utilities are due to switches coming out of adjustment. This may be further enhanced due to external challenges such as wind loading, icing, galloping lines, and thermal cycles. When installing and selecting a switching provider, utilities should consider switch designs with:

## 1) FORGIVING CONTACT GEOMETRY



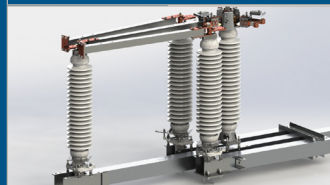
Fine tune adjustment & blade leveling should not be required. This can often be accomplished via an oversized contact bar on the blade tip where the jaw fingers only trap the blade on two sides.

## 2) HEAVY DUTY LINKAGES & VERTICAL PIPE



Operating linkages and frame should be designed to eliminate and reduce deflection. Vertical pipe should be supplied a minimum of 2.5" outside diameter and increased as needed depending on equipment size and structure height.

## 3) SIMPLIFIED INSTALLATION



The switch should arrive on-site with minimal components and each phase fully assembled and adjusted from the supplier's factory. A collapsible frame assembly can allow for easy unfolding and mounting.

## 4) CLOSURE NOT DEPENDENT ON FORCE



Proper contact closure should not be dependent on operator speed or force. Improper speed of closure for certain designs can lead to blade seating issues.

