ENERGIZED INSULATORS CONTAMINATION AND FLASHOVERS
WASHING SYSTEMS OVERVIEW

Everyone involved in power utilities, sees trips on its transmission and distribution lines caused by insulator contamination.

Live Line Insulators Washing Helps Maintain Reliability, combating the insulators contamination buildup.

Coastal and inland utilities experience salt contamination when salt fog condenses on electrical equipment critical to delivering power.

The insulator pollution builds up gradually but does not decrease the insulation strength when the insulators are dry. When the polluted insulators become wet, a conductive layer forms on the contaminated insulator surface, initiating leakage current.

The line voltage flashes over this contamination, causing a line outage or relay operation. In most cases, several arcing periods may precede an actual flashover that results in an outage event.

MOST FLASHOVER OUTAGES ARE UNPREDICTABLE AND TAKE SEVERAL HOURS TO REMEDIATE.
Salt and airborne contaminants such as dust and industrial emissions build up on transmission and distribution system equipment, increasing the potential for conductivity and arc-over at the insulators.

A dedicated maintenance program focused on washing insulators prevent trips on transmission and distribution lines caused by insulator contamination.

It is standard procedure wash while the system is energized with a maintenance program seasonally adjusted.

When a contaminant-related failure takes out a line, rather than running the risk of having multiple flashovers and repeated relay operations, which is hard on the circuit breakers and substation equipment, the utility washes the insulators while the system is out (“cold wash”).

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Wilorton Holding Inc. has been supplying fixed and mobile washing systems serving transmission and distribution lines and substations, for more than 19 years.

We are ready to accept any challenge and questions.

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