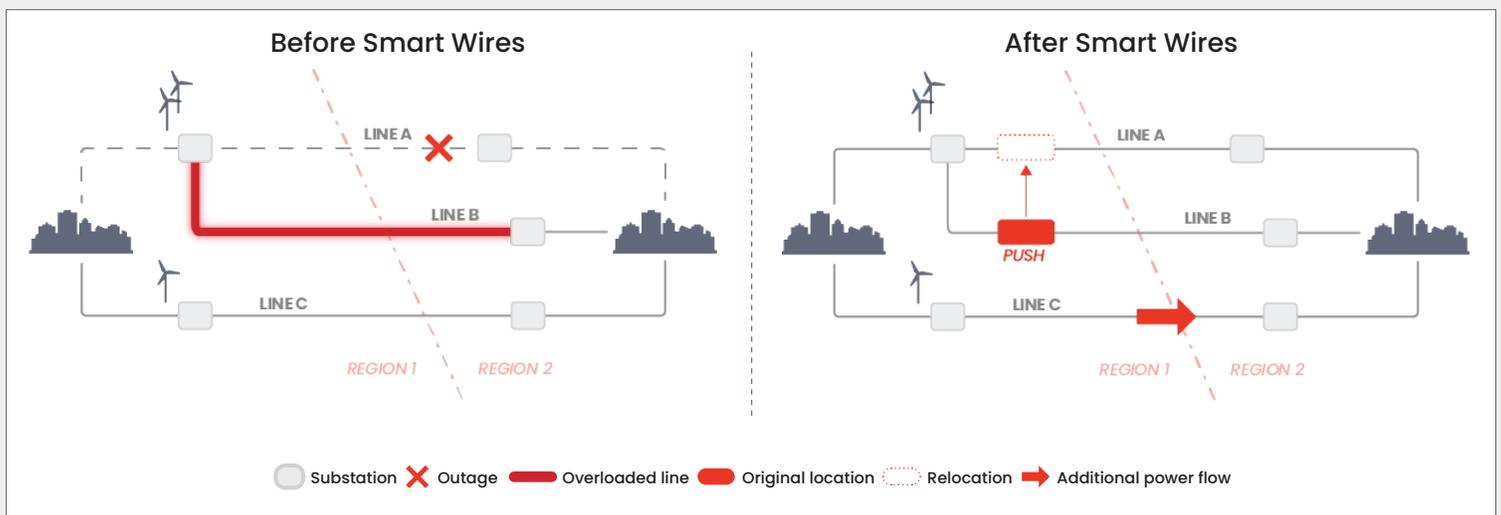


SUPPORT CHALLENGING CONSTRUCTION AND MAINTENANCE

Typically, utilities de-energize lines to complete construction and maintenance work. Seasonal demand often dictates when lines can be taken out of service without compromising system reliability. These outage windows are shrinking as utilities demand more from their grids. Even simple projects may require more than one outage window to complete. This vastly increases project time, cost and complexity.

With a mobile deployment of SmartValves™, utilities can extend outage windows, and complete more projects on time and within budget.



CHALLENGE

- A utility plans to upgrade two lines from 345 kV to 500 kV, and at least six months is required to facilitate each upgrade.
- During these outage windows, the transfer capacity between Regions 1 and 2 is significantly reduced. Transfers are limited by the overload produced on Line B while Line A is being upgraded, and vice versa.
- These overloads restrict the construction timeframe. The overall upgrade will take several years since each outage window is very short.

SOLUTION

- During the outage of Line A, a mobile unit of SmartValves deployed on Line B pushes power onto Line C and avoids overloading Line B.
- The mobile unit is then deployed to Line A during the upgrade on Line B, to resolve a similar constraint.
- This solution enables the utility to extend the outage windows by maintaining requisite regional transfers.

IMPACT

- The SmartValve solution increases transfer capacity by nearly 300 MW.
- By extending the outage windows, this solution facilitates challenging construction that would have otherwise been very complex and costly.
- The deployment can be relocated to relieve other constraints after the project is complete.