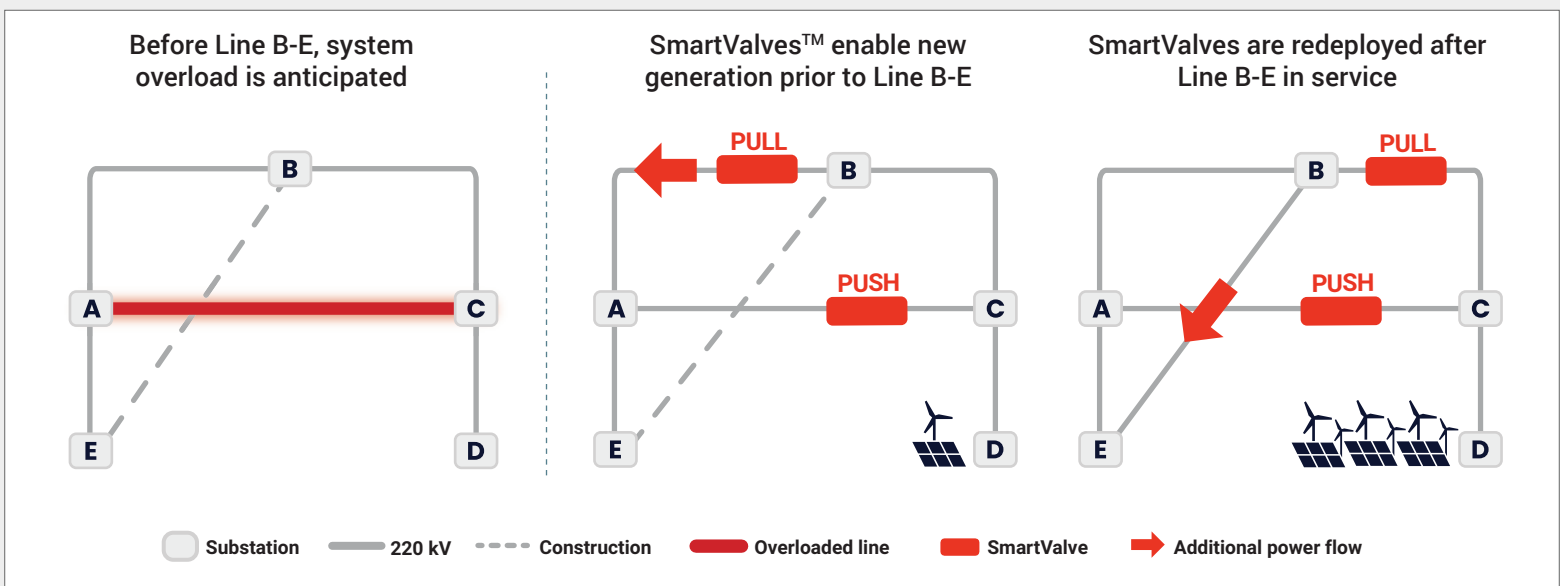


FACILITATE NEW LINES

One way utilities integrate new load and generation resources is to build new infrastructure. New lines can often take many years to complete due to various financial, regulatory, social and environmental hurdles. Construction delays can be costly for utilities, both from a financial perspective and also from a system security perspective. Given how challenging it is to build new lines, utilities seek to make the best use of this infrastructure once it's in service.

Smart Wires modular power flow control solutions can be deployed quickly and solve short-term overloads that will ultimately be resolved by a forthcoming new line. Once the line is in-service, these voltage-agnostic devices can be relocated to ensure full utilization of the new infrastructure.



CHALLENGE

- A utility seeks to build a new line (B-E) and connect new generation at D.
- Line B-E will not be in service for five years, and will probably be delayed further. The utility must redispach generation to ensure system reliability until this line is in service.
- Additional wind and solar generators would like to connect at D, but system constraints make this infeasible until Line B-E is in service.

SOLUTION

- SmartValves on Line A-B and Line A-C alleviate congestion and allow new generation to connect at D prior to Line B-E coming online.
- After Line B-E is in service, the utility will redeploy SmartValves from Line A-B to Line B-C to enable even more generation to connect at D.

IMPACT

- Smart Wires' solution mitigates the risk of a delayed line and maximizes its utilization once it is in service.
- Prior to Line B-E, SmartValves provide tens of millions of dollars in benefits by allowing optimal dispatch of local generation and enable 490 MW of new generation.
- After Line B-E is in service, redeploying SmartValves maximizes the usefulness of this new line, enabling a further 400-500 MW of generation .