Grid Resilience and Intelligence Platform (GRIP)

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Approach

Value Proposition:

- *Reduce* grid resilience upgrade *costs*
- **Reduce** liability and shareholder **exposure**
- Lower electricity rates

Approach

- 1. Integration of *data streams* for grid resilience.
- 2. Access an advanced, flexible and efficient *power flow (Arras Energy)* data driven / physical models based solver.
- **3**. Using current and historical data to infer the impact forecast (i.e. **resilience metric**).
- 4. Run data-driven scenario analysis for mitigation planning.





SLAC



Use-cases



Fig: PSPS event with PG&E Napa, CA Feeder Network

Use-cases

- 1. Bulk pole analysis
- 2. Conductor strike analysis
- 3. System resilience analysis for integrated distribution network including:
 - a. Pole vulnerability
 - b. Conductor failure
 - c. Wildfire reconfiguration and staging according to generation / storage availability



Fig: SLAC 230kV PG&E line

SLAC





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