

Epic 3.20: Data Analytics for Predictive Maintenance

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December 2021: EPIC Symposium

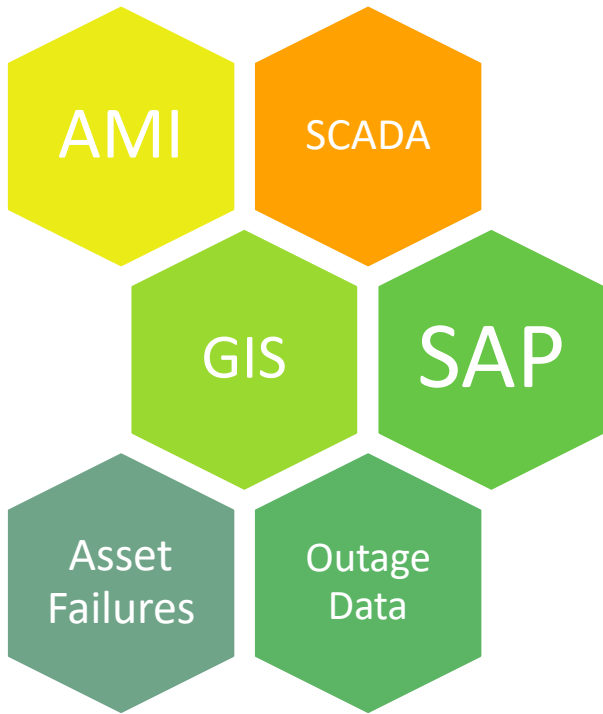
EPIC 3.20 is part of the Community Wildfire Safety Program Portfolio of Projects



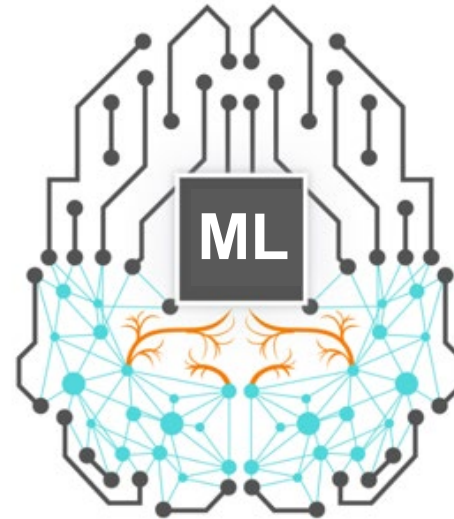
Together, Building
a Better California

EPIC 3.20 – Approach and Use Cases

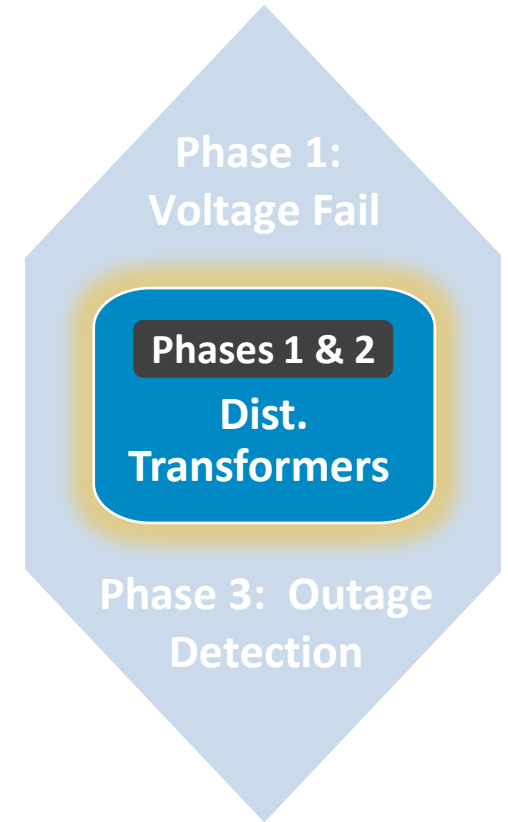
Use existing PG&E data sources



Develop predictive failure models using machine learning



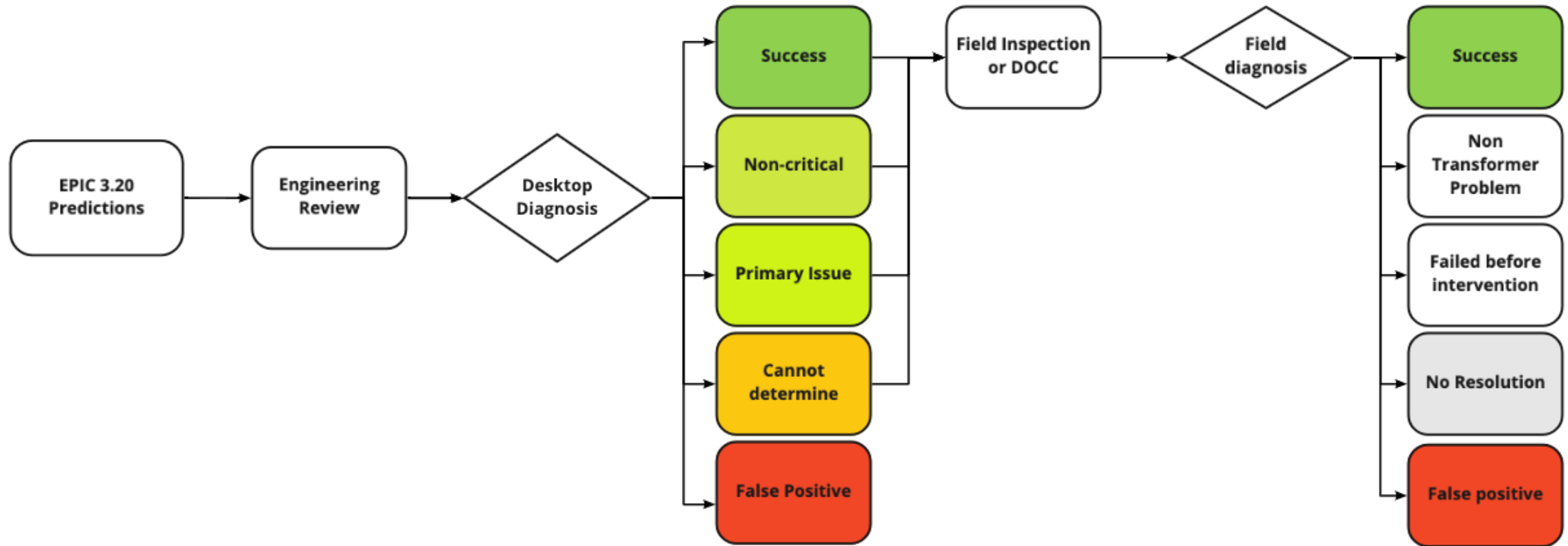
For high priority failure modes



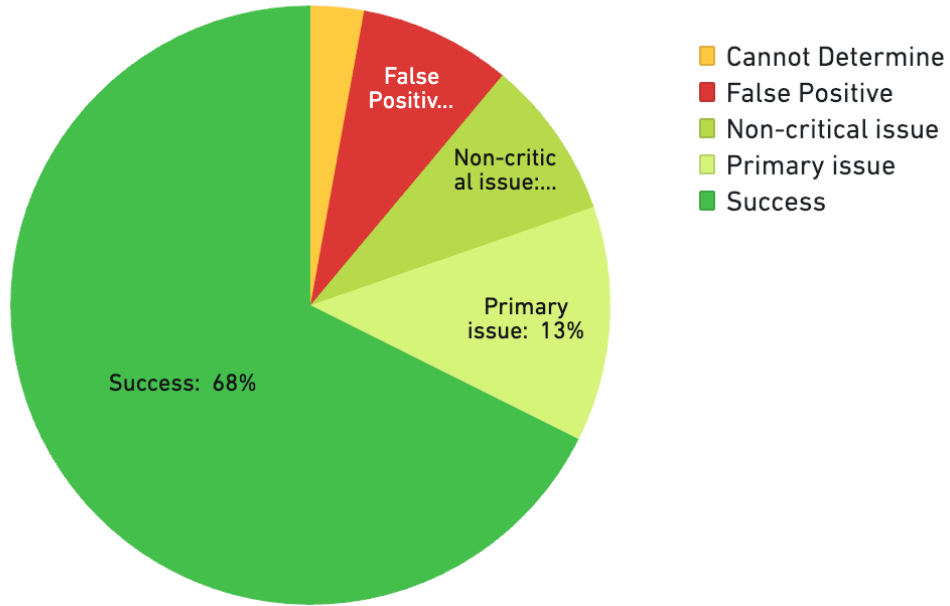
Result:
A check engine light for electric assets



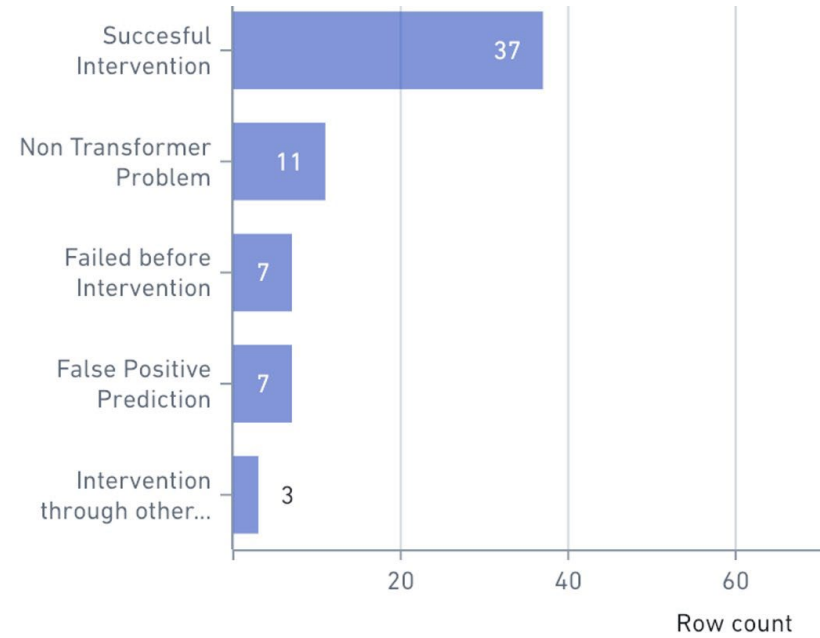
Assessment of predictions and Corrective Action



Engineering Reviews and Field Inspection Outcomes



Engineering Reviews



Field Inspections

15 successful interventions in High Fire-Threat districts

Transformer Teardown example



Burn through of Paper (Layer to Layer Failure)



Winding to Winding Failure with Kraft Paper removed from Layer exposing individual Windings



Primary Winding (Circled) - Design is Outer Secondary/Primary/Inner Secondary (Primary has 1600 Windings with approximately 80 Windings /Layer - Secondary has 16 Layers Each - 1 Sheet per Layer)