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op X Consulting and LADWP Develop Circuit Breaker Risk and Reliability Management Project

op X Consulting worked with Los Angeles' Department of Water and Power (LADWP) organization in the development, integration and implementation of a comprehensive (short, intermediate and long term) multi-year maintenance strategy and plan for its 34.5-kV circuit breakers as well as to effectively track the value of its preventive and predictive maintenance practices. The op X and LADWP cross-functional team developed a Comprehensive and Economically Sustainable, Reliability Centered, and Risk Managed Multi-Year Maintenance Strategy and Plan for the Organization's:

- Oil Circuit Breakers
- SF6 Circuit Breakers
- Air Blast Circuit Breakers
- Vacuum Circuit Breakers

The major portions of the project included:

- Develop, Document and Implement Policies, Processes and Procedures as well as Tools to Enable LADWP to Develop, Revise and Renew its Quarterly, Annual and Multi-Year Maintenance Strategy and Plan each Year to Identify Resource Needs for the Next Fiscal Period and Out Years;
- Validate, Refine and Confirm the Organization's Reliability Centered Breaker Maintenance Templates (RCM) and Maintenance Activities via Benchmarking of Current Practices to Industry Best Practices;
- Identify and Define the Risk Associated with each Maintenance Activity, System and Equipment Failure Potential, and the Financial Impact and Reliability Consequences Addressed by each Maintenance Activity;
- In the execution of the Quarterly, Annual and Multi-Year Maintenance Strategy and Plan, Define and Document the Risk Associated with each Breaker, Cost and Reliability

Thresholds, etc, to Prioritize each Activity and Consistently Identify those Activities that Provide the Greatest Value within the Organization's Available Resources;

- Provide the Processes, Procedures and Tools to Consistently Prioritize System and Equipment Maintenance Activities Based on their Value (Reliability Impact, Risk, Cost Avoidance, etc) to Cost Ratio to Maximize the Impact of Available Resources;
- Provide a Tool to Continuously Document the Value of the Maintenance Strategy, Plan, Processes and Procedures by Tracking the Mitigated Risk (the Financial Value) and the Increase in System and Equipment Reliability (the Reliability Impact Avoidance)