DRˣ for Reliability Optimization

COMMON CHALLENGES

- Utilities are under pressure to meet constant or tightening targets under changing conditions, and don't have the tools to prove how regulatory framework changes would be mutually beneficial to the company, regulator, customers, etc.
- It's difficult to pinpoint the specific circuits and segments for specialty programs and how much to spend
- Complex questions take a long time to answer, for example around forecasting to annual reliability targets and necessary reallocation of spend/resources and costs

ABOUT DRˣ – *"DISTRIBUTION RELIABILITY EXCELLENCE"*

Our solution helps executives, managers, and reliability engineers manage key metrics and essential data. **The Reliability Optimization Module** leverages utility and external data along with AI and proprietary modeling techniques to help you plan programs to meet targets, optimizing both reliability and related spend.

WHY UMS GROUP

We pride ourselves on being a strategic partner - external experts / consultants with broad industry experience in helping utilities adapt and drive sustainable change and performance gains across their business. Besides 30+ years bringing best practices and pragmatic insights to the utility industry, data scientists in our analytics & tool dev center use machine learning / AI to embed that operating expertise into advanced decision support tools that eliminate 70-80% of analyst work required to get answers.

BECOME A RELIABILITY LEADER

Speedily, Easily Answer Challenging Questions

Quickly answer questions from executives, regulators and external stakeholders with less effort and greater insight into the underlying drivers of reliability trends and/or which solutions should be adopted.

Support Beneficial Regulatory Frameworks

Robust analyses and evidence to support mutually beneficial regulatory framework changes and/or to plan appropriately for tightening targets given changing operating conditions (i.e. weather volatility / storm intensity).

Allocate Investment Optimally, Company-Wide

Don't simply set spending per region based on historical levels; rather, use data to allocate reliability investments optimally, considering efficient frontiers across asset types and specific programs, targeted to deliver maximum system-wide customer benefit.

HOW DRˣ CAN GET YOU THERE

Circuit Level Reliability Benchmarks and Targets

Benchmark performance of each circuit with similar circuits of peers across a variety of dimensions (both internally and externally); identify key outage causes, or areas for improvement to achieve top quartile performance.

Worst Performing Circuit Analyses

Measure / forecast WPC risk, enable mid-year repairs, VM interventions, load transfers, and targeted system improvement efforts. Trend WPC recidivism to facilitate refinement of strategies and investment levels.

Reliability Forecasting

Know (and communicate) where the business is at any time during the year with respect to reliability targets, and regulatory commitments - both for reallocating resources and priorities and to clearly manage expectations.

Optimal Reliability Investment Targeting

Determine which circuits and segments to invest in, how much to spend, and which reliability improvement programs/solutions to apply to minimize risk and maximize performance.

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Of course you report on reliability metrics and use that data to set priorities for reliability programs...	But, are you optimizing investments across Regions and Reliability Program Managers ...

To target each dollar for maximum reliability and customer benefit? And can you prove it?

With the DRˣ Reliability Optimization Module, you can !

1 Go well beyond your historical system-level Reliability benchmarks, to define circuit level reliability targets with **peer benchmarks** that show performance gaps of **each circuit.**

2 Understand your current **worst performing circuit profile** and the probability of having "repeat offenders" for consecutive years, as well as the effectiveness of your current problem circuit program.

3 Explore the **root causes** of your outages as well as trends (issues becoming worse as well as those already improving), then delve into specific problem circuits that will benefit from **specialty mitigation programs / investments**.

4 Analyze detailed cause codes (i.e. tree limb vs. tree fell) to determine where more aggressive programs (i.e. danger tree removals) and possibly greater spend might be needed to address the issues. **Integrate** your enterprise system data with Google Earth to **design** optimal specialty programs (i.e. Animal Guards) and **quantify likely value, cost and return on Capital** based on **projected O&M savings** and **Reliability improvements.**

With these data and analyses, enable your company to **drive and support mutually beneficial regulatory framework changes**, or at least ensure you can meet fixed targets with changing storm scope, frequency and exclusions. **Answer complex questions** from regulators executives or other stakeholders quickly and easily, and **demonstrate optimal reliability spending decisions**.

"Great information - the history and patterns of when outages are occurring on a circuit, and the probability of the circuit breaching WPC thresholds is very useful. This would normally take us a week to develop." – Senior Director, T&D Asset Management – Mid-sized Southwestern Electric Utility

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