



SYSTEM SEGMENTATION ANALYSIS

Optimizing Infrastructure Control

EN Data Solutions offers extensive experience in data integration and analytics. We combine our energy industry, GIS, and data management expertise to assist our clients in building data systems that meet the specific needs of their organization, industry, and sector, considering their business drivers, regulatory environment, and operational practices. Through improved data management, our clients increase efficiency, plan targeted programs, make educated decisions, and systematically improve their data quality, which helps them meet and exceed their business goals focused individuals whose work is transforming modern utilities.

ISOLATION OPTIMIZATION

SERVICE OVERVIEW: EN Data Solutions offers a system segmentation analysis which provides operators with emergency isolation plans which maximize efficiency of existing assets. Emergency isolation plans are a critical part of ensuring distribution networks safety because they



enable operators to quickly shut off sections of the system in the event of leaks, ruptures, or other emergencies. Emergency isolation plans play a critical role in maintaining safety by minimizing the release of hazardous materials, protecting personnel and nearby communities, and reducing the number of customers impacted during emergencies. By limiting service interruptions, these plans ensure a safer and more resilient system for all stakeholders. Additionally, they help prevent extensive damage to infrastructure and reduce the downtime needed for repairs, thus ensuring service continuity. Strategic placement of emergency isolation valves is essential to maximize the effectiveness and reliability of emergency isolation plans.



Our analysis applies GIS, asset, and risk information from the distribution network to select isolation valves from operators existing inventory. The analysis also generates recommendations for new valve placement where existing valves are insufficient. This analysis allows operators to gain valuable insights and actions to ensure their network can handle changes that can support the operators being proactive in improving system reliability, allocating workforce resources efficiently, budgeting for improvements and maintenance needs and enhancing overall network safety and reducing operational costs.

KEY FEATURES: EN Data Solutions provides advanced tools and analysis to help operators address real-world challenges such as minimizing new-valve installations, reducing service disruptions during emergencies, and improving response times. Core features include:

- **Emergency Isolation Planning:** Detailed plans to mitigate risks by safely shutting off sections of the pipeline network during leaks or ruptures.
- **Valve Optimization:** Identification of optimal valve placements and evaluation of existing inventory to maximize utility and minimize installations.
- **Risk-Based Prioritization:** Prioritization of pipeline segments for maintenance or upgrades based on criticality and impact.
- **GIS-Based Insights:** Geospatial analysis that converts raw network data into actionable insights, enabling efficient planning and proactive management.



These features empower pipeline operators to proactively address challenges, ensure compliance with safety standards, and enhance network resilience.

For more information on how EN Data Solutions can help you model & optimize your infrastructure, contact us at:

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