Power & Utilities Case Study
PRI applied to aging infrastructure

Many Utilities companies have an immediate need to use predictive risk analytics to determine the best way to target replace and repair priorities for their aging infrastructure. Often times, these efforts take many years to complete.

Step 1—Identify internal and external data
- Identify & compile data
- Internal client and third-party data
- Historical temperatures and climate
- Customer complaints
- Construction and subway zones
- Visualization of key risk factors
- Select variables
- Develop heat map
- Use model to calculate composite risk score
- Trend analysis
- Identify low and high risk areas
- Cross database pattern recognition

Step 2—Data analytics
- Identify statistically valid correlations
- Identify compile and integrate records
- Cleanse and prepare data

Step 3—Geographic Information System (GIS)
- Location of risk factors

Step 4—Apply predictive risk analytics
- Identify risk drivers
- Identify risk scenarios
- Determine probabilities
- Calculate risk values
- Define accountabilities
- PRI

Understanding of repair prioritizes for an aging infrastructure.

Three potential benefits resulting from PRI implementation

- A more resilient, reliable system, capable of delivering cleaner energy in less time
- Fewer “reliability” issues due to the complex process of rotating in new energy sources and retiring infrastructure
- Improved ability to meet consumer demand for higher quality power enabled by construction of a more modern infrastructure