

Data Quality in Utilities – Concepts and Best Practices

Course Background and Attendee Preparation

Data quality management is a large and complex field with many dimensions. In utility companies, business and data professionals need a solid foundation of concepts, principles, and terminology that are common in quality management. Building upon that foundation, they need to understand how quality management concepts and principles are applied to data, as well as the language and terminology that specifically apply to data quality.

The importance of data quality in the Utility Industry is rapidly growing as new use cases for analytics are identified and pursued. Advances in data science and artificial intelligence are providing new opportunities for business improvement and innovation. Processes such as asset management, network operations, cyber security, environmental management, demand forecasting, regulatory compliance, decarbonization, green energy generation and energy storage management are examples of evolving drivers that will benefit significantly from analytics. However, analytics success that enables true business value is heavily dependent on acceptable levels of data quality.

Please think about the following items before and during class:

- What the term “data quality” means to you and your organization
- The terminology used in your organization to describe data quality, for example accuracy, completeness, timeliness, etc.
- Examples of how poor data quality limits the creation of true “business value” from a Utility Industry perspective
- Reasons these barriers exist based on organizational, technical, process or skills considerations.
- How formal monitoring and improvement practices are used to measure, manage and track data quality performance within your organization
- Examples of data quality measurements, i.e., KPI’s that are used.
- Examples of impacts these KPI’s have on improvement activities. How do you monitor changes in data quality over time?