ANALYSIS, PRIORITIZATION, AND TECHNOLOGY STRATEGY

Grid Modernization Roadmap

Working with Clients to define a strategic technology roadmap for the grid.

Grid modernization refers to the implementation of automation technology to upgrade current utility electricity delivery systems to realize improvements in customer engagement, advanced operations, resiliency, safety and security, and conservation and sustainability.

Quanta Technology’s approach starts with a series of alignment workshops with management and technical leaders to converge on common objectives and expectations regarding grid modernization optimized for the client. This would be followed by the development of an initial grid modernization roadmap including benefit cost analyses, business case preparation, and risk analyses.

The results of these activities are then used to fine tune and finalize the grid modernization roadmap and develop an implementation plan. The project team would work closely in a collaborative manner with the utility team during project execution to ensure that expectations are met, and that feedback and direction is incorporated into the roadmap. Quanta Technology believes that our recommended and proven approach will allow a utility to clearly define their goals and develop a technology roadmap to meet those goals and achieve their overall objectives.

**Utility Goals**

It is important to develop well-defined goals to guide development and prioritization of the roadmap. Examples of goals can include:

**Roadmap Offerings**

- Assist developing a grid modernization strategy.
- Serve as a consultant on key technical and non-technical matters to assist in prioritizing investments in areas such as:
  - Smart meters/Advance Metering Infrastructure (AMI)
  - Outage Management Systems (OMS)
  - Customer portals
  - Solar/wind/battery evaluation and integration
  - Electric-vehicle charging
  - Smart street lighting
  - Customer education/survey
  - Work Management Systems (WMS)
  - Advanced Distribution Management Systems (ADMS)
  - Fault Isolation and Restoration Schemes (FLISR)
  - System hardening
  - Integrated planning
  - Revised standards
  - Other automation systems.

**Why Quanta Technology?**

Quanta Technology can tailor an approach to best meet a utility’s grid modernization needs based on our extensive experience and lessons learned. We have supported large IOUs and municipalities of all sizes in roadmap development. Our experience includes:

- Detailed industry knowledge
- Extensive technology expertise
- Collaborative exercises
- Practical roadmap development.

**PICTURED:** Goal examples
**Roadmap development**

Using the utility goals and drivers, various technologies are evaluated on a benefit cost basis and prioritized to create the utility grid modernization roadmap.

The utility goals and drivers are critical as the basis for the technology evaluation and prioritization to create a roadmap that suites the utility’s needs.

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**Goals and drivers**

**Features and functions**

**Grid modernization programs**

**Investment options**

**Technology roadmap**

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**Quanta Technology, LLC.**

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