A holistic view of your network is key to developing innovative business applications that will provide value-added new services. The CGI OpenGrid360 solution suite enables a single view of a utility’s network that supports rapid application development to meet changing customer needs.

Driving innovative new services through data
At the heart of the CGI OpenGrid360 solution suite is the CGI OpenGrid Foundation master data management and integration layer that pulls enterprise data from multiple core systems and serves it to the network data model. Once in place, network owners / operators can more rapidly deploy in-house or third-party applications to: launch new services for consumers, prosumers and other market parties; improve the use of network assets; provide network flexibility services; and work more collaboratively in managing consumer-generated electricity.

EXAMPLE CGI OPENGRID360 BUSINESS APPLICATIONS
CGI has developed a data insight application on top of the OpenGrid Foundation and is building numerous others. Following are example profiles of business applications for outage response and customer experience management, with a focus on construction project management and prosumer grid management.

Outage Response
Utilities have a strong need to provide accurate information to customers and other stakeholders during an outage. The CGI OpenGrid360 Outage Response application detects outages and automatically reroutes electricity to avoid power loss. Artificial intelligence (AI) and machine learning help analyze relevant operational data (e.g., service, outage, field and distribution management) to prioritize and auto-dispatch restoration efforts based on resource location, outage size, duration, etc.

Also analyzed are images from social media (e.g., to identify what damage on the network looks like and to target the response), combined with sensor data. Analysis of prior events increases accuracy in estimating restoration time, interruptions and damage, as well as needed resources/skills. Utilities are able to provide quick, accurate information to stakeholders via a portal or app. The data also helps improve grid planning and restoration.
Customer experience

Utilities’ customer relationships are changing rapidly from one-way to two-way models. CGI OpenGrid360 business applications enable utilities to work more collaboratively with and provide better insight to their commercial and residential customers. Here are two examples:

- **Construction Project Management**: Large construction projects such as shopping center and housing developments rely upon utilities for accurate project status to commence and continue work. These projects involve ecosystems of subcontractors, employees and neighborhoods that depend on the information as well. This system and portal facilitate communication about accurate and timely utility-related information for commercial construction projects.

- **Prosumer Grid Management**: Growth in distributed energy resources (DERs) requires greater visibility of customer-owned assets and their potential interconnection impact on utility-owned infrastructure. CGI OpenGrid Foundation integrates both internal and external network data to improve decision-making for grid control. This positions a utility to become more of an energy advisor with a customer engagement platform that supports a franchise approach to managing consumer-generated electricity while aligning with regulatory requirements for data protection and legislative objectives for a carbon-neutral grid model. Consumers can register their behind-the-meter assets (external owned) with the option to have the utility remotely manage and control the assets in exchange for prosumer tariff models. As an example, when solar photovoltaic technology combined with battery storage are used for voltage and frequency regulation, a financial incentive can be offered the prosumer for enabling capital deferral on the utility side to promote new revenue models.

Bringing it all together

These new business applications are part of our CGI OpenGrid360 solution suite, co-developed with large network operators in connection with our work on UK smart grids innovation programs. The solutions help network owners/operators improve data insight and accelerate innovation to meet the evolving demands of the new energy system. The suite includes modules for asset, network and mobile workforce management, as well as advanced smart grids and renewable energy operations management. CGI OpenGrid360 is compatible with your existing architecture, infrastructure and data approach and can be delivered in North America and Europe, with onsite, onshore and offshore implementation available. Modular, scalable and interoperable, solutions can be deployed incrementally to deliver future capabilities, systems and functions, and can be configured to your core systems to maximize business benefits.

CGI in Utilities

As the move to a secure, affordable and fair low-carbon energy ecosystem intensifies, CGI supports the energy transition by helping utilities transform to address growing volumes of distributed energy resources, exploit data insights and other digital enablers to diversify revenue streams, support real-time operational excellence, and enhance the customer experience, all while keeping the business secure.

ABOUT CGI

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world. Operating in hundreds of locations across the globe, CGI delivers an end-to-end portfolio of capabilities, from IT and business consulting to systems integration, outsourcing services and intellectual property solutions. CGI works with clients through a local relationship model complemented by a global delivery network to help clients achieve their goals, including becoming customer-centric digital enterprises.