Energy Management Solutions for a Better and Greener Government
From energy efficient buildings and green technology to new procurement processes that favor sustainable products and services, government is beginning to assert its leadership in conserving energy, sustaining the environment, and improving economic performance. Central to these efforts are initiatives to modernize government facilities to reduce energy and costs and promote sustainability.

Major building systems can be wired, metered, and otherwise connected to provide centralized visibility and control of energy usage. Sensor-rich environments can also monitor occupancy utilization and identify opportunities for consolidation. Leading-edge measurement and management technologies can point to areas for improvement—but only if they use open standards to integrate with disparate legacy systems and incorporate processes that support data sharing.

While technology and analytics can help pinpoint opportunities for energy savings, human behavior has a significant impact on helping government reach its goals. The combination of providing meaningful data with an engaged user community is critical to achieving operational savings.

At CGI, we recognize government’s strong commitment to sustainability. We also understand that buildings exist to maximize human and organizational performance. As a result, we are committed to delivering solutions that enable better government by addressing how facilities and portfolios are managed and how people perform within them.

Commitment to Corporate Social Responsibility

Our business model is designed to ensure that we are close to our clients and communities. We embrace our social responsibilities and contribute to the continuous development of the communities in which we live and work. We are proud to be part of the Dow Jones Sustainability Index and a member of the FTSE4Good Index and The Green Grid, a technology-driven global consortium dedicated to advancing energy efficiency in data centers and business computing ecosystems.
Creating Efficient, Sustainable Real Estate Portfolios

CGI provides the domain expertise and a robust, integrated framework for optimizing agency real estate portfolios while also supporting sustainable purchasing, recycling, waste management, and alternative work strategies. We work collaboratively with agencies to:

- Reduce consumption, emissions, and costs through actionable data and user engagement
- Create comfortable, productive work places and maximize occupancy utilization
- Operate transparent programs with clear accountability and measurable outcomes
- Make prudent investments that provide flexibility for growth and change.

Our Facility Optimization and Sustainability Framework addresses the interconnected dimensions of people, processes and technology:

- Engaged User Communities: We facilitate change and support for program and savings goals through active collaboration with tenants, operators, engineers, and management.
- Data Capture and Analytics: We use advanced metering techniques to derive actionable, real-time performance data from enterprise-level occupancy, environmental, and building systems.
- Optimized Infrastructure Investment: Our facility assessment approach evaluates existing systems, identifies no- and low-cost improvements, and maximizes existing infrastructure. We design best-fit, scalable solutions that are based on open standards.
- Program Management: Our repeatable methods, practices, and tools are specifically tailored to owners of built environments and align with industry standards and best practices.
- Continuous Performance Improvement: We focus on both behavioral change and technical solutions to promote continuous improvement.

CGI’s Facility Optimization and Sustainability Framework

![Diagram of Facility Optimization and Sustainability Framework]

- Engaged User Community: Buildings for people, by people
  - Commitment to conserve usage and reduce cost
- Data Capture and Analytics: Enterprise view of real estate portfolio
  - Measure, monitor, and make decisions in real time
- Continuous Performance Improvement
- Optimized Infrastructure Investment
  - Maximize existing systems and equipment
  - Prudent investments yield maximum savings
- Program Management
  - Repeatable methods, practices, and tools
  - Tailored to real estate and construction needs
DELIVERING RESULTS IN ENERGY AND ENVIRONMENT FOR 35 YEARS

CGI has been a systems integrator and energy and environmental partner to large government and commercial organizations for 35 years. Our domain knowledge and capabilities include:

• **Environmental Program Support.** CGI-developed systems help our clients support nearly all energy and environmental business processes, including efficiency and sustainability measurement, permitting, compliance, enforcement and report writing, scientific collaboration, and chemical management.

• **Recognized Energy and Environmental Experts.** Our dedicated energy and environmental experts have worked with clients to collect, integrate, and display data for air, climate, water, waste, and chemicals—as well as energy consumption—at the facility, program, and enterprise levels.

• **Smart Grid Energy Efficiency.** CGI builds comprehensive and robust systems, including dashboards, for enhanced tracking and management to reduce energy consumption. We have implemented demand response solutions for 50 leading electric, gas, and water utilities and demand side managers. These solutions have tracked consumption data for approximately 15,000 facilities and 1 million data points, reducing consumption up to 30 percent for some clients.

INTEGRATING OPEN, TECHNOLOGY-INDEPENDENT SOLUTIONS

As a leading systems integrator, CGI provides the expertise and technology-independent approach to integrate and unify complex and disparate systems, streamline infrastructure controls, and create collaborative processes and systems—all supported by ISO 9001 and SEI CMMI Level 3 quality processes and frameworks. We are experts in deploying open-standards-based solutions that support interoperability with legacy systems and devices. In addition, our $1 billion infrastructure services business includes IT optimization, cconsolidation, virtualization, and cloud techniques to support sustainability goals. We received a “strong positive” rating in Gartner’s MarketScope for Data Center Outsourcing 2010.

CGI Rapidly Deploys Data Collection System to Support Stimulus Fund Transparency

CGI excels at high-profile, fast-turnaround projects. When the Recovery Accountability and Transparency Board needed to launch a portal to collect data related to the $787 billion stimulus fund, CGI was chosen to support this challenge. In just six weeks, CGI built and deployed FederalReporting.gov to handle all Recovery Act funding recipient reporting.
ENERGY AND ENVIRONMENTAL MANAGEMENT CLIENTS

We currently partner on large-scale, long-term energy and environment projects with agencies of the U.S., Canadian, and Australian governments; more than a dozen state, provincial, and local governments; and numerous private sector enterprises. Examples include:

- **Environmental Protection Agency (EPA).** CGI operates EPA’s Central Data Exchange (CDX), which uses open standards and architecture to collect and exchange millions of environmental data records through a set of bundled services. These include registration, collection, authentication, standard web services, and data publishing. CDX provides a common gateway for consolidating data from multiple entities with disparate systems. This approach is highly applicable to designing building gateway middleware for connecting building data to a central data store.

- **New York City Department of Buildings.** CGI is serving as a strategic advisor on sustainability within the Strategic Planning Office. We are advising Department of Building officials on potential building code changes, data collection, and the creation of performance dashboards to increase energy efficiency in New York City buildings.

- **Government of British Columbia.** CGI maintains and develops enhancements for the system that collects and tracks greenhouse gas emissions from public sector organizations in British Columbia. This includes the provincial government and municipal governments in British Columbia, as well as all public sector schools, universities, health authorities, and hospitals. CGI developed the data model to gather and report emission information and also developed algorithms to calculate emissions, focusing on travel, fleet, buildings, and office paper consumption.

- **Commercial Clients.** CGI provides energy management services to a broad range of commercial clients, including 50 utilities in North America and Europe. Our services range from energy data collection and analytics and modeling to energy dashboards. We integrate data and build tools—such as carbon calculators and dashboards looking at energy, transportation, and waste—to aid decision makers and improve energy efficiency.

CGI Solutions Track Energy Consumption for Leading Utilities

Our energy efficiency solutions for utilities have tracked consumption data for approximately 15,000 facilities and 1 million data points, reducing consumption up to 30 percent for some clients.
Building a Sustainable Future

Managing an energy efficient building portfolio requires an integrated approach to data, analytics, advanced dashboards for consumption and utilization monitoring, and human behaviors. It also requires an understanding of government operations and metrics to ensure compliance with standards and mandates. CGI has the expertise, experience, and capabilities to pull it all together into an integrated, portfolio-wide solution that improves both efficiency and mission performance.
ABOUT CGI

CGI is one of the largest independent information technology and business process services firms in the world. For 35 years, we’ve partnered with U.S. defense, civilian, and intelligence agencies to support their mission-essential needs at every stage of the program, product, and business lifecycle. As a global leader in IT, we deliver end-to-end solutions in application and technology management, systems integration and consulting, business process management and services, advanced engineering and technology services, and operational support services. Our proven capabilities in high-demand areas include sustainability, cloud computing, biometrics, cybersecurity, data exchange, citizen services, and open government. CGI has 31,000 employees in 125 offices worldwide. CGI shares are listed on the TSX (GIB.A) and the NYSE (GIB) and are included in both the Dow Jones Sustainability Index and the FTSE4Good Index.

www.cgi.com/federalenergy
www.cgi.com/facilityoptimization

For more information, contact:

Susan Balding
Director, Communications
susan.balding@cgifederal.com