GE Total Efficiency™
Datacenter

Hardware, Software, Services and Financing to Address Power, Cooling, and Energy Management Challenges

→ Lower utility bills 10-20%
→ Reduce cooling requirements 50-70%
→ Achieve energy efficiency of 97-99%
Today’s IT infrastructure: It’s all about providing access to critical information and applications on any device from any location at any time. To accomplish this, you need to have a handle on the key IT fundamentals: the secure and reliable delivery of information. And all this must be done with minimal downtime. Considering the cost of IT disruptions is estimated as high as $2,000 per second, you need to make sure this infrastructure is always up and running. It’s key that business processes are optimized, while reducing the number of applications. Operations need to be streamlined to leverage organizational effectiveness. New products, relationships and business models can transform industry value chains.

Adding to this complexity, the mobility and consumerization of IT is leading to the deployment of more than a billion new smart phones. Mobile Internet handsets are estimated to send more than 8 trillion text messages, process over $240 billion in mobile commerce payments, and transmit over 6 million terabytes of data this year. Global digital content is forecast to increase some 30 times over the next ten years to 35 zettabytes (that’s 35 trillion gigabytes). Cloud computing is already a $40 billion segment on its way to becoming $240 billion over the next decade. None of this is possible without a reliable datacenter.

The challenge is clear: Derive insight from the huge volumes of data being amassed in your datacenters, and turn those insights into competitive advantage with tangible business benefits. You need to turn data into actionable information, information into intelligence, and intelligence into better decisions. No two data centers are identical. That’s why you need the flexibility to leverage any design methodology with the scalability to meet future demands.

At GE, our goal is simple – help you accelerate your return on investment, lower total cost of ownership, and ensure non-stop reliability of your datacenter for decades. Our technologies provide an end-to-end architecture for grid to building, building to room, room to row and rack, and box to board electrification. We’re flexible to support AC or DC computing, networking, security and storage devices. We’re built-in to many of the datacenter products you buy from Cisco, Dell, EMC, HP, Juniper, IBM, and Oracle – just to name a few. We challenge traditional perceptions with unique approaches to power quality and backup power. We enable you to leverage sustainable energy sources and avoid cooling requirements while improving centralized visibility and control.

Let us show you how GE can help improve your datacenter...visit us on the web at www.gedatacenters.com.
At GE, we ask, “Why predict the future when we can create it?” For over 130 years, we’ve used the tools of research (combined with a little inspiration) to create the world of tomorrow. Today, we continue to innovate what has yet to be imagined. Our founder, Thomas Edison, was not only a brilliant inventor, but also a business pioneer who aligned multiple businesses to bring innovation to the marketplace. We also remember that the light bulb did not happen through the continuous improvement of candles. Our new ways of addressing existing challenges can completely change everything.

We’ve been partnering with our customers for more than a century. Today, we operate in 100+ countries with about 300,000 people taking on the world’s toughest challenges. Our annual investment in research and development has more than doubled over the past decade – from $1.9 billion to $3.9 billion. Globally, we’ve increased our patent filings 48% over the past decade, having filed 2,763 patents last year. Our global research centers in Brazil, China, Germany, India and New York are home to 2,800 researchers developing new technologies – ranging from electronics to chemistry, biosciences to computing, metallurgy to fluid mechanics, materials to imaging - and everything in between. GE ranks third in cumulative earnings over the past decade, the highest for a non-oil company, and over 40% more for the decade than Microsoft.

The challenge of energy efficiency is immense, global, and impacts everyone as we face the move from fossil fuels to alternative and sustainable sources of energy. We’re turning the world’s oldest energy resources into the newest through our latest solar, wind, and water technologies. We’re in the unique position of directly impacting and improving energy efficiency from seabed to CPU. Today, we help generate a quarter of the world’s electricity as we deliver innovative turbine, electrical distribution, digital energy, power quality and power electronics platforms.

Information technology and telecommunications facilities account for approximately 120 billion kilowatt hours of electricity annually—or 3 percent of all U.S. electricity use. A McKinsey & Company study estimates carbon dioxide (CO2) emissions from data centers will quadruple to exceed emissions from the airline industry by 2020, due to the rapid growth in global demand for computing power. Perhaps you never thought of GE as a partner to help solve your toughest datacenter challenges. But we can help lower your electrical utility bills by 10-20 percent as we reduce energy loss and associated cooling requirements by as much as 50-70 percent. You can also reduce water consumption 20-40 percent. GE Total Efficiency Datacenter technology reduces your electricity and water consumption while assuring reliability and scalability.

GE can help you improve and derive more capacity from existing investments for a sustainable advantage. Our solutions encompass a proven set of integrated hardware, software and services with associated financing and infrastructure as a service options to address your datacenter power, cooling, and energy management challenges. Our architecture is open and modular so you can invest at your own pace — whether you are retrofitting an existing datacenter, building a brand new facility, or simply deploying incremental or temporary capacity.

Using GE solutions, you could setup a data center that doesn’t need the grid by leveraging sustainable biogas, solar, and wind electricity generation capabilities. GE has more than 27 billion watts of wind and solar resources installed around the world – enough to power nearly one fourth of annual global datacenter electrical demand.
Gartner estimates by 2016, 60% of new datacenters will be 40% smaller while supporting a 300% increased workload. Datacenters are estimated to consume 2% of the U.S. electrical grid capacity resulting in $2 billion per month in utility bills. More video has been uploaded to YouTube in the last 60 days than if ABC, CBS and NBC had been airing new content 24 hours a day continuously since 1948. For this reason, you need the most cost-effective datacenter facilities, without limiting the flexibility to enable virtualization, cloud computing, mobility, social media and collaboration applications. And you must do this all while trying to navigate an ever-changing vendor landscape to mitigate risk and maximize return on investment.

The GE Total Efficiency™ Datacenter architecture is designed specifically to help you address the power, cooling and energy management challenges of current and future datacenter facilities. Datacenters can consume 40 to 100 times more energy than the offices they support. We hear it from our clients all the time — datacenters with available physical space but sitting idle due to power and cooling constraints. We’re here to help with building, box and board technologies that enable you to achieve extreme computing, communications and data storage density in all of your rooms, rows and racks. Let us show you how.

GE technologies can address over half of your datacenter energy usage from power supply, distribution, cooling and lighting, while also delivering 40% annual improvement in non-IT system energy savings. By combining cutting-edge products and services with an expertise in Building Management Systems, GE helps provide you with a solid foundation to invest, improve, innovate, and simplify — with solutions that are practical, achievable and cost-effective. Let us show you how we can dramatically improve the energy efficiency of your datacenter, ensure business continuity, and scale to meet the needs of the most demanding communications, computing and storage environments.

**Ecomagination**

Retrofitting is the practice of improving existing buildings by implementing energy efficient upgrades. It has the power to aid both the environment and the economy by creating long and short-term jobs. Ecomagination is our commitment to imagine and build innovative solutions to today’s environmental challenges while driving economic growth. In 2005, GE launched ecomagination to address critical challenges, including the need for cleaner and more-efficient sources of energy, reduced emissions and abundant sources of clean water. Since then, we’ve been using our unique energy, technology, manufacturing and infrastructure capabilities to develop solutions. An example is the ecomagination 750 kVA UPS from GE, certified for high efficiency operation to improve power usage effectiveness (PUE). We’re also the industry’s first power supply manufacturer to achieve the 80 PLUS® Platinum certification to help manufacturers easily identify network, server and storage power supplies that lead the industry in energy efficiency while lowering utility and cooling costs.

Since its launch, ecomagination has resulted in $5 billion of clean-tech research and development. We have also launched the ecomagination Challenge, a $200 million partnership with top venture capital firms to drive and fund open innovation for clean tech. We’ve already generated nearly 4,000 ideas from 150 nations. In the next five years we expect to double our clean-tech research and development to $10 billion.

With rising fuel costs, climate change concerns, and a growing demand for electricity, renewable energy resources such as solar power are becoming an increasingly valuable part of the world’s energy mix. We’ve invested more than $600 million in our solar business, and we plan to build the largest US solar panel factory in Colorado starting in 2012 to deliver lighter, larger, more efficient thin film solar panels. We’ve also dramatically grown our wind business through technology and scale since entering the space in 2002. At GE, we have more than 27 billion watts of wind and solar resources installed around the world – enough to power nearly one fourth of annual global datacenter electrical demand.
While many providers can only help inside your datacenter, GE is in the unique position of leading the future of electrification with technologies to improve utility power generation, electrical grid distribution, and local energy efficiency.

**Smart Grid**

We’ve developed smart grid solutions to address the planet’s energy infrastructure needs and create an integrated, sustainable solution capable of handling power challenges for the 21st century. Smart grid solutions improve performance. Intelligence and control improvements result in better ways to manage energy usage and control costs. With more than 110 years building successful energy grid solutions we have a clear and compelling roadmap to help our datacenter customers:

- Understand generation needs
- Determine transmission and distribution requirements
- Consider alternatives to improve energy efficiency and resource utilization
- Monitor, optimize and analyze assets to extend life
- Integrate with existing building management systems

**MicroGrids and Substations**

GE’s MicroGrid solutions efficiently manage renewable energy sources (wind, solar, biogas) and energy storage devices to keep your datacenters connected to the larger utility power grids, but will also allow your facility to seamlessly disconnect if necessary. MicroGrids are self-contained power grids featuring independent power generation and storage using solar panel, wind turbine, and gas engine technologies to more efficiently use your own local power generation capabilities for your datacenters.

Our substations and switchyards incorporate a 34.5kV to 765kV High Voltage (HV) primary voltage rating. Projects include conventional air insulated (AIS) or gas insulated (GIS) designs for outdoor or indoor applications. GE’s Substation Automation devices offer a seamless and scalable solution for automating and providing visibility to power system networks. Led by our team of seasoned industry experts, we can develop, integrate and deliver a complete automation system for local substation HMI, SCADA or DCS systems integration to provide fault diagnostic capability, asset predictive diagnostics, load shedding, and secure engineering access. Substation capabilities include electrical and civil engineering / design and procurement of equipment, materials, and protection / control / monitoring systems. Inspection, testing, and commissioning can be included as well with equipment packages. If a turnkey system is ordered, we can survey, soil test, engineer, design, furnish equipment and components, construct the substation and test / commission it for energization. Additionally, we’re able to perform required power system studies in support of the project.

**TriGeneration**

GE’s TriGeneration power, heating and cooling system gas engines generate efficiencies of more than 90% and energy savings of 40%. Our unique TriGeneration technology enables you to generate cooling and power for your datacenter. Absorption chillers provide an economic and environmental alternative to conventional refrigeration. Combining high efficiency, low emission power generation equipment with absorption chillers allows for maximum total fuel efficiency, elimination of HCFC/CFC refrigerants and reduced overall air emissions.

Combining a gas engine (natural gas or biogas) cogeneration plant (0.25 to 9.5 Megawatt capacities) with an absorption refrigeration system allows utilization of engine output heat for cooling. The hot water from the cooling circuit of the cogeneration plant serves as drive energy for the absorption chiller. The hot exhaust gas from the gas engine can also be used as an energy source for steam generation, which can then be utilized as an energy source for a highly efficient, double-effect steam chiller. Up to 80% of the thermal output of the cogeneration plant is thereby converted to chilled water. In this way, the year-round capacity utilization and the overall efficiency of the cogeneration plant can be increased significantly.

**Switchgear**

GE low voltage, medium voltage and parallel switchgear and disconnects provide dependable, economical, and cost effective means to protect your datacenter equipment. Our integrated systems combine automatic and manual backup controls with protection, metering, and switching elements to ensure a continuous distribution of power.

GE’s Power/Vac® medium voltage switchgear (5kV to 38kV) combines the features of metalclad construction with industry-first vacuum interrupter technology.
Incorporating the compartment concept with grounded metal barriers that segregate primary functions, no live parts are exposed. Safety interlocks are standard, as are closed door racking and storage, breaker position indicator and positively actuated safety shutters to meet a wide variety of protection and switching applications. All functional units (incoming line, radial feeders, feeder bypass, bus-tie, bus-entrance and auxiliary units) are available for flexible system planning.

GE's **SEN Plus** low voltage switchgear is tested for power distribution and control as per IEC 61439-1 /EN 60439-1 and IEC/TR 61641. The SEN Plus system can meet the most demanding requirements for high current applications up to 6300A. Limitation of internal arc faults has been independently tested to ensure compartmentalization of the functional areas to limit the fault to the point of origin. Equipped to deal with large faults, circuit breakers and busbars are available for 100,000A, 1 second short circuit rating.

**GE Zenith Energy Commander™** parallel switchgear (PSG) provides control for multiple power sources, usually two or more generator sets with the utility source. Available in both low voltage and medium voltage configurations, Energy Commander PSG addresses medium to very complex environments due to its design flexibility and reliability. Energy Commander has been providing our customers with reliable power switching systems since 1981 – evolving and adapting to the changing technologies in engine generator design, switchgear controls and monitoring systems for critical power applications.
We’re at the forefront of parallel switchgear (PSG) control solutions with advanced technologies to deliver the highest level of system reliability and availability. We offer comprehensive redundancy solutions including the revolutionary QuadPAC redundancy, which leverages a patented algorithm to help maintain maximum system availability for “near-zero” downtime. Our high availability control solutions enable connectivity to various I/O to provide real-time communications, deterministic data transfers, and automatic switchover for continuous operations.

GE’s Entellisys™ low-voltage switchgear is a breakthrough in power distribution protection, control, monitoring, diagnostics, and ease-of-use. System functionality is based on synchronized, real-time information from every circuit breaker, simultaneously processed in one place. Entellisys helps reduce costs, shorten schedules, and increase reliability throughout the process of designing, installing, maintaining, and owning your low-voltage power distribution switchgear. AKD-20 low-voltage switchgear delivers enhanced arc flash protection, non-vented panels plus insulated and isolated bus. Integrating into our new state-of-the-art EntelliGuard® breaker-trip unit system, it also features an optimized footprint to fit into a smaller area for the most common configurations. EntelliGuard® G circuit breakers are the newest line of GE low-voltage circuit breakers, available from 800A to 5000A, with fault interruption ratings up to 150kAIC – without fuses.

GE’s Arc Vault™ protection system reduces datacenter construction costs, when compared to traditional arc resistant switchgear – because it doesn’t require exhaust chimneys or plenums to direct the arc flash energy outside of the building. Arc Vault sets a new standard for protection by fully containing (rather than exhausting) an arc flash in less than eight milliseconds. The system can be retrofit onto existing GE or other manufacturers’ equipment without having to replace the existing low voltage equipment line-up.

GE’s Tranquill™ Series Surge Protective Device (SPD) line is available in wall mount construction, as well as integrated within our low voltage distribution equipment, such as panel boards and switchboards. An integrated design allows for short lead lengths with a controlled installation process. The integrated design eliminates your installation errors, saves wall space and can reduce the installed cost of the protection. The TR series wall mount SPD handles the highest levels of surge activity found in your datacenters with per mode protection rating range 65kA to 300kA; 65kAIC and 200kAIC surge withstand rating range; and 120Vac to 600Vac voltage range.

Panel boards and Busway
GE’s Spectra™ series panel boards offer plug-in and bolt-on style interiors for use with either fusible switches or molded case circuit breakers. Spectra series busway is at least 50% lighter than comparable wire and conduit – and lighter than competitors’ busway, too. This simplifies design, reduces installation time and may lower your total installed cost by up to 75% versus wire and conduit. The compact Spectra Series also allows runs in more places, such as around and between existing structures. Removable isolation joints mean maintenance and modification are done easily and with minimal downtime, which may lower your operational costs versus wire and conduit as your building needs change.

GE’s IEC QuiXtra™ panel boards offer safe solutions using the latest Record Plus™ MCCB technologies. The QuiXtra Power Design software helps you to simplify the design of the complete panel to optimize footprint.

Gas Engine Generators
For over a half century, our gas engine platforms have led in the development and production of gas-fueled reciprocating engines, packaged generator sets, and cogeneration units for the efficient generation of power, cooling and heat. In fact, we can help you analyze whether our gas engines can deliver a more cost-effective, energy-efficient and reliable primary power source for your global datacenter footprint.
GE gas engines, ranging from 0.25 MW to 9.5 MW, are known for their high efficiencies, low emissions, durability, and high reliability. These gas engines run on natural gas or a variety of other gases including biogas, landfill gas, coal seam gas, sewage gas, and combustible industrial waste gases. These gas engines can ramp up to full power (and back down) in under five minutes and are capable of up to 90 percent total efficiency. Whether you’re seeking full power at high efficiency levels or a unit capable of short start-up times, GE gas engines are an ideal, reliable solution for your lasting power needs.

AC Uninterruptible Power Supply (UPS)

GE’s SG Series UPS provides one of the most efficient and reliable three-phase UPS platforms for datacenter critical power protection. Patented eBoost™ software enables the GE UPS to operate in both double conversion mode or eco mode providing maximum levels of power reliability and 99% operating efficiency to lower energy consumption and improve PUE. The high efficiency multi-mode UPS operation has been recommended by The Green Grid in their Data Center Maturity Model and is also supported by the US EPA in the upcoming ENERGY STAR program for UPS devices.

Up to six (6) SG Series 750 kVA UPS modules can be paralleled for redundancy using our unique Redundant Parallel Architecture™ (RPA). The RPA technology eliminates centralized control and static bypass switch cabinet single points of failure; and also provides a scalable modular architecture for future UPS capacity expansion. Surge Protective Devices (SPD) protect datacenter IT infrastructure loads from transient surges originating inside or outside your facility. GE UPS systems are fully supported by GE’s Global Services, renowned for its world-class, 7 x 24 preventive and corrective maintenance, training, and application expertise.

DC Uninterruptible Power Supply (UPS)

The Electrical Power Research Institute (EPRI) estimates power disturbances cost the US datacenter segment as much as $188 billion per year in lost data, materials, and productivity. Nothing works without reliable power. The IEEE Power Electronics Society has stated 48V DC energy systems with batteries and generator sets like those from GE are 20 times more available than traditional AC battery backup systems. The Green Grid has studied in detail the efficiency of a variety of existing and proposed datacenter power architectures. The most efficient choice is the 48Vdc architecture which we have proven to be safe, reliable and cost-effective over the past four decades. Our 48V DC datacenter energy system is 97% efficient and is designed to deliver up to 8 hours of battery backup runtime before requiring a generator. As large enterprise datacenter utility bills exceed $10+ million per month, the savings opportunities are significant with ROI payback periods of less than two years.
DC datacenter environments are being built for cloud computing, mobile internet and super-computing research facilities. The simple fact is that a DC (direct current) datacenter cuts the number of power conversions in half between the utility grid and the CPU in your servers – enabling you to reduce power loss by 50%, lower associated cooling requirements by 70%, and achieve 10-20% utility bill savings.

We’ve been powering communications for nearly 100 years with DC energy systems designed for decades of reliable service. Our Galaxy Power System™ (GPS) offers up to 20,000 amps of 48Vdc power for centralized battery room or distributed rack and row deployment with battery backup provided for your entire datacenter for up to 8 hours without requiring any generator operation. The GPS is installed and supported by one of the most experienced DC power services team in the world.

Batteries

Durathon™, from GE is a revolutionary new energy storage technology which offers the reliable back-up power and flexibility that your data centers require. Based on sodium-nickel chloride chemistry, Durathon is a scalable plug-n-play battery. Typically less than half the size and one-third the weight of traditional battery technologies, individual modules are strung together in parallel to create an energy storage grid of any size to provide 1-60 minutes or more of back-up power. Capable of functioning in extreme temperatures from -20°C (-4°F) to 55°C (131°F), Durathon batteries don't require a controlled temperature environment – facilitating broader use of free-air cooling techniques in your datacenter. The product of our $160 million investment, Durathon batteries provide an extended life cycle (up to two decades). Our batteries feature deep discharge, fast recharge, frequent cycling capabilities, need little maintenance, produce no toxic chemicals, are recyclable, and have remote-monitoring capabilities. Why keep replacing conventional batteries every 2-3 years? Enjoy true long life, ruggedness and maintenance-free batteries that can be as flexible as your business.

Lighting

The peak load from your commercial lighting can account for up to 37% of a commercial office utility bill. GE’s interior lighting control solution is scalable, highly flexible, and has stood the test of time. From a single space to multiple facilities - from simple schedules to advanced energy management systems - our solution can be easily designed and tailored to address your datacenter lighting control needs. Our newest line offers powerful best-in-class functionality for stand-alone application and adds LonWorks® LNS open system architecture for seamless integration with your building automation system or other facility management tools.
Cooling Solutions

The Department of Energy estimates that cooling and humidification control accounts for 40% to 60% of your datacenter’s physical operating costs. Data center cooling offers one of the greatest opportunities for energy-efficiency improvements. GE, in partnership with Trane, offers scalable cooling systems - including chilled water, airside, controls, hybrid solutions, and evaporative cooling as a cost-effective solution to significantly extend economizer “free cooling” operating ranges. The telecom sector has used free air cooling techniques for more than four decades – and today we’re improving the energy efficiency of our power electronics to reduce associated cooling requirements up to 70% while also introducing new battery technologies that don’t require any environmental controls.

Our TriGeneration solutions combine with our water treatment technologies to efficiently use water cooling in the datacenter. With over 25 years of proven water treatment experience, we continue to set the industry standard for research & development, manufacturing, system design and customer support. The result is 30% energy savings for you.

Water Treatment

Proper water treatment is crucial for maximum protection and efficiency of HVAC systems for data centers. Not only is the quality of cooling water crucial to data center operations, but the quantity of water is becoming a bigger issue. GE water treatment systems ensure a sustainable water supply for your datacenter via reuse of onsite waste water. Our advanced membrane systems convert waste water into drinkable water for cooling systems, fire protection and irrigation. Advanced cooling systems protect towers, chillers and stored water systems from corrosion, deposition, and microbial growth to maximize cooling capacity while reducing chemical and water usage. The result is enhanced visibility and improved efficiency for you to reduce water consumption costs and help achieve your sustainability goals.

Software Solutions

GE datacenter software platforms can integrate with your current building management systems (BMS), datacenter infrastructure management (DCIM) tools, IT operations management platforms, and device element managers. At GE, we understand the importance of managing all facets of your datacenter operation to maintain the highest levels of efficiency. We bring many powerful systems and tools to the Total Efficiency datacenter solution, including Entellisys™ analytics & circuit protection, PMCS energy management, Proficy™ Process Systems (PPS) real-time asset monitoring and workflow management, and water resource management. We also understand the importance of centralizing visibility and control of your datacenter assets and operations to achieve higher efficiency through real-time visualization, planning, and decision-making. As a result, you gain a competitive edge while meeting “green” compliance requirements.

PMCS is a fully integrated energy management system that helps streamline and optimize your critical power system to maximize the power quality and efficiency of the datacenter facility. PMCS also allows you to perform advanced power quality analysis, track load management and monitor energy consumption from a single location. You can track power and energy usage for billing purposes and for calculating industry PUE metrics. Power quality can be monitored in real time at your utility service entrance, input to the UPS output, output of the UPS, and PDU output. Power quality events are captured, waveform recordings can be triggered and out-of-limit alarms/logs provide an accurate system-wide depiction of power disturbances relative to voltage immunity standards (SARFI index, ITI CBEMA curves).
Services

GE offers global reach combined with local presence serving more than 20 industries in over 100 countries – delivering planning, design, installation, optimization, remote monitoring and diagnostics for your datacenter. In addition, we offer lifecycle services to support a wide range of power generation and transmission and distribution equipment. From deployment to simple maintenance services to technology upgrades and end-to-end incident services, we help you keep the datacenter operating reliably and efficiently. One call to 888-GE4SERV puts you in touch with over 2,000 field resources ready to serve you.

Financing

We’re not just bankers, we’re builders. Like a bank, we make loans—but we also give you access to the know-how to make that financing work harder. We provide smart financing and the know-how to help your capital go farther. What you’re building takes money, but it may also need knowledge and expertise. This is where we come in. With over 50,000 employees working across 55 countries, the GE Capital team is diverse, global, and passionate about what we do. GE Capital can help with your datacenter equipment leasing, real estate financing, and senior debt facility needs. Any bank can help you finance. Only a builder can help you grow. Around the world, we’re helping our customers invent more, make more, and sell more — and to do it all with greater efficiency in ways that no other bank can match.

Our Newest Datacenter

GE is walking the talk by opening a new green $48 million center in Louisville, KY. It sits on the same site where the world’s first commercial UNIVAC computer was put to work in 1954. We approached the design, construction and operation of this facility with the intent of reducing our data center energy consumption and lowering environmental impact – all while providing tremendous computing power to support major product and infrastructure investments now and well into the future. The result is one of the first Platinum LEED® certified datacenters:

- Exceeding industry standards for computing power, our data center houses servers designed to operate at 18 to 24 kilowatts (kW) per cabinet, compared to the industry average of 4 to 7 kW per cabinet.
- Our data center is 34 percent better in terms of energy savings than a typical code-compliant building.
- In addition to installing innovative, high-efficiency cooling systems, we’re installing high-density servers to pack more computing power per square foot, reducing the size of the data center floor by half compared to the data center it replaces. This means that less energy is needed to cool the space.
- We’re also reducing water consumption inside the building by 42 percent compared to the industry baseline by installing ultra low-flow fixtures. Outside the building, we can reduce water consumption by 100 percent.
- We have offset 35 percent of our data center’s predicted annual energy consumption through the purchase of off-site renewable energy.
Contact Us

So, it’s time to take the next step. Visit us online at www.gedatacenters.com or email data.centers@ge.com to learn how we can help tackle your toughest datacenter power and cooling challenges — with a comprehensive suite of hardware, software, services and financing solutions to meet your unique needs.

About GE


GE serves the energy sector by providing technology and service solutions that are based on a commitment to quality and innovation. The company continues to invest in new technology solutions and grow through strategic acquisitions to strengthen its local presence and better serve customers around the world. The businesses that comprise GE Energy—GE Power & Water, GE Energy Management and GE Oil & Gas—work together with more than 100,000 global employees and 2010 revenues of $38 billion, to provide integrated product and service solutions in all areas of the energy industry including coal, oil, natural gas and nuclear energy; renewable resources such as water, wind, solar and biogas; as well as other alternative fuels and new grid modernization technologies to meet 21st century energy needs.