Seattle City Light
Conserving Energy for a Sustainable Future

SAVE ENERGY AND IMPROVE PERFORMANCE
by upgrading IT equipment.

DATA CENTERS

Rebates Available
(206) 684-3800
Call Today

Seattle City Light will pay up to 70% of project costs to upgrade to energy-efficient cooling, power management and IT equipment.

IT equipment requires constant cooling. That's why IT and facility managers are upgrading to energy-efficient equipment in their data centers. When you upgrade, you not only save energy and money, but you can improve reliability and reduce under- or over-cooling in your server rooms.

Whether your business has one server or a full-scale data center, take advantage of a FREE energy assessment to determine where you can save energy. Seattle City Light offers the following data center and IT rebates:

Cooling

• Chillers

• HVAC controls

• Blanking panels

• Hot and cold aisle separation

• Duct work

Power

• Uninterruptible power supply

• Power supply retrofits

Efficient equipment

• Thin Client/multi-user CPU's

• Server virtualization

• Software plug loads

• Power management software

Upgrade to energy-efficient equipment and see the impact in energy-savings, temperature control and power management — immediately.

CUSTOM REBATES

Custom rebates are based on your specific projected energy savings, paying up to 70% of project costs for many of the measures below.

Cooling upgrades

- **Blanking panels.** Installing blanking panels in open rack spaces can maximize cooling effectiveness and decrease room air temperatures.

- **Hot and cold aisle separation.** Installing a physical barrier — such as vinyl strip curtains — separates hot and cold air streams in the data center, minimizing wasteful air re-circulation. Physical barriers reduce cooling energy use by 10-15%, increase the efficiency of cooling equipment and improve temperature control at the server.
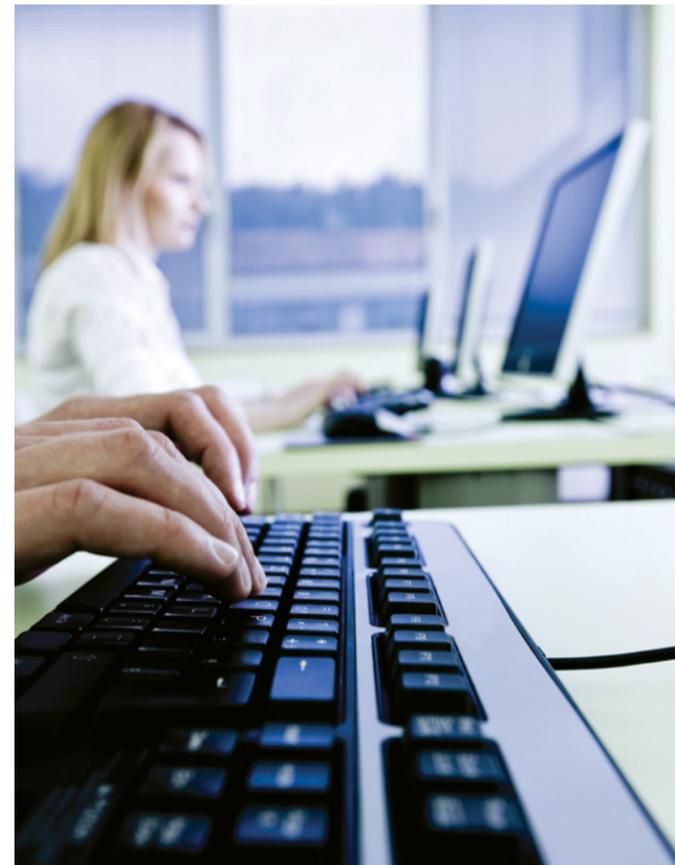
- **Cooling with outside air.** Use Seattle's mild climate for data center "free air conditioning" instead of using energy-intensive mechanical cooling.

- **Energy-efficient chillers.** In situations where it's not feasible to cool using outside air alone, you can still qualify for Seattle City Light rebates by using chillers that are at least 10% more efficient than Seattle Energy Code requirements.

- **Duct work or server cabinet installations.** Permanent air flow installations, such as duct work or rack enclosures, can be retrofitted to separate hot and cold air streams.

Power management upgrades

- **Energy-efficient uninterruptible power supply (UPS).** Most UPS systems operate at 40-45% of capacity and incur power losses of up to 15%. An efficient UPS system can cut losses by 50% or more, saving energy and reducing costs.

SIMPLE REBATES

Simple rebates offer flat per-unit funding to offset the purchase cost of qualified energy-saving equipment.

IT equipment upgrades

- **Server virtualization.** By dividing one physical server into several virtual servers, you reduce the number of dedicated servers your operation requires — thus lowering your power and cooling requirements, as well as hardware costs. For each underutilized server removed, you will receive a $150 rebate.

- **Multi-user central processing unit (CPU).** Seattle City Light offers a one-time rebate of $25 per connected workstation when you connect multiple workstations to a single CPU.

- **Power management software.** To encourage the use of power management software, Seattle City Light is offering up to $8 per connected desktop and $3 per laptop that shuts down or goes into sleep mode when not in use.

Payback time for most IT upgrade projects is short, and you'll continue to enjoy lower energy costs and improved reliability for years to come.

> **"I feel much more confident about the reliability of the Data Center after the retrofit. We were able to track the changes in temperature immediately after the project. It was instant gratification and instant savings."**
>
> Herman Buchanan, Data Center Facility Engineer
> Department of Information Technology
> City of Seattle

City of Seattle Data Center Pilot Project

The City of Seattle Data Center supports all of the City's vital services through its many servers and batch processing of the City's enterprise applications.

Seattle City Light supported a pilot project to improve the cooling of the data center by implementing a real-time monitoring system that guided air flow optimization.

Project recommendations included:

- Installing blanking panels
- Installing a partial subfloor baffle
- Sealing cable penetrations

These changes reduced the mixing of the cold supply air with the warm exhaust air, requiring less cooling and reducing the overall electricity demand for the Data Center. The subfloor baffle reduced airflow in areas where it wasn't needed.

These improvements allowed excess vent tiles to be removed and 30% of cooling units to be turned off. Cool air is supplied more uniformly to the servers with fewer hot spots. Higher exhaust air temperatures allow the remaining cooling units to function more efficiently.

PILOT PROJECT RESULTS:

- Reduced cooling energy consumption by 17%
- Estimated annual savings of $20,000 or 325,000 kWh
- Seattle City Light funded approximately 25% of project cost, reducing the payback period to about 3 years

Free server room assessment

A Seattle City Light energy analyst will come to your business and assess your server room — monitoring operating conditions, airflow, temperature, humidity and power usage — to identify rebate opportunities and specific upgrades that will improve your operations while reducing your energy usage.

Call (206) 684-3800 to schedule your free assessment!

Rebates for energy conservation

Seattle City Light offers rebates to help customers save electricity because it is the most cost-effective way to meet our future energy needs. When customers reduce their electricity use, it helps us conserve our hydro resource and avoid the expense of building new power plants or buying electricity on the open market.

Our mission

Seattle City Light is dedicated to exceeding our customers' expectations in producing and delivering environmentally responsible, safe, low-cost, and reliable power.

Reduce your carbon footprint

Seattle City Light is a national leader in protecting the environment and has been carbon neutral since 2005. Seattle residents and businesses are joining in efforts to help reduce the negative impacts of climate change and Seattle City Light can help.

HOW TO GET YOUR
SEATTLE CITY LIGHT REBATE

1. Call (206) 684-3800
2. Work with a Seattle City Light energy analyst to evaluate your project and estimate your rebate and energy savings
3. Secure authorization from Seattle City Light prior to starting work
4. Proceed with installation and contact Seattle City Light for final verification when work is complete

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