



GE
Critical Power

Your Bottom Line. TRANSFORMED.

Maximizing Efficiency in Your Data Center

Efficiency matters.

By 2020, electricity consumption in US data centers will be approaching 140 billion kilowatt-hours per year. At today's prices in the commercial sector, that's \$15 billion of OpEx allocated to electricity alone.

Data centers typically lose 21-27% of power due to inefficient systems. Since you're paying for all of that power, you want to use as much of it as possible, right?

Let's see if we can uncover—and rectify—some areas of inefficiency in your data center.

Efficiency Killers

1 Balancing the Load on the AC Grid

Single-phase rectifiers require an extra step in power conversion, and innovation-minded engineers are stuck balancing the load instead of developing and implementing new technology.

2 Putting Energy through the Paces

Carrying power from the transformers to the racks requires an incredible amount of lower-efficiency cable. Every conversion step and every yard of cable serves to decrease overall data center efficiency.

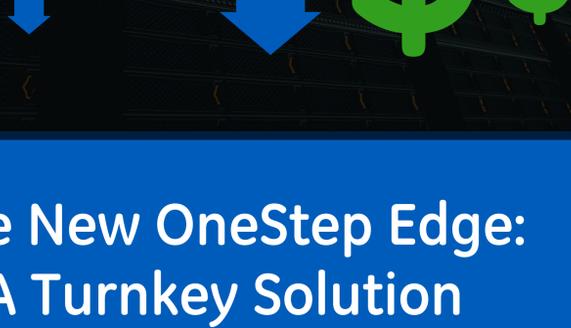
3 Replacing Equipment

Computer power doubles every two or three years, and as data centers replace obsolete systems, thousands of power supplies are removed, trashed, and replaced.



4 Giving Up Real Estate in the Racks

Data centers too often sacrifice RUs to power supplies, which translates into more racks, a larger footprint, and **lost potential revenue**.

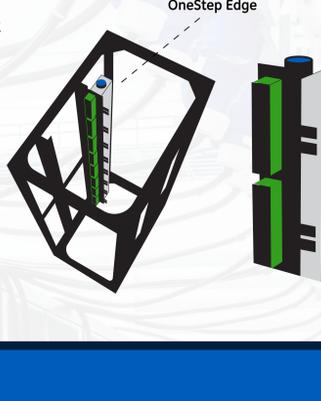


The New OneStep Edge: A Turnkey Solution

With the OneStep Edge, the PDU is installed on the left side of the cabinet, leaving 42RU of space.

But that's not all of its efficiency-boosting benefits. The OneStep Edge also:

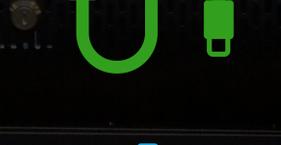
- Distributes 480V down the rack
- Brings power within inches of the load equipment
- Reduces cable requirements
- Decreases power loss
- Shrinks cooling costs 3-5%
- Allows UPS hot-swapping from the cool aisle
- Can be installed in other vendors' cabinets



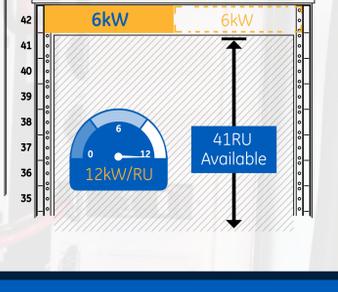
The GP100—Our 1RU, 3-Phase Power Solution

By developing our groundbreaking, 1RU, 3-phase GP100, we've helped data centers migrate from single-phase to 3-phase rectifiers without sacrificing rack space. That switch goes a long way toward resolving data center inefficiency. 3-phase rectifiers:

- 1 Ensure electrical phases grow in equal increments
- 2 Eliminate a conversion step and significantly reduce the amount of lower-efficiency cable required to get power to the rack
- 3 Have a longer lifespan than single-phase power supplies

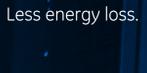


Plus, our GP100 allows you to allocate more RUs to revenue-generating equipment, rather than power supplies. But what if your entire rack could be open for business?

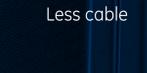


Less is the New More

With the OneStep Edge solution, less truly is more.



Less energy loss.



Less cable



Less heat



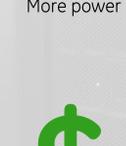
Less waste



Less environmental impact



More density



More power



More efficiency



More revenue

It's your bottom line. Transformed.

To learn more about the OneStep Edge Solution, download our latest eBook, Maximizing Efficiency in Data Centers, or visit www.GECriticalPower.com.