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# Sustainable Electrical Solutions

FOR 2023

SOLUTIONS YOU CAN IMPLEMENT  
THAT WILL PROVIDE LONG-LASTING  
BENEFITS FOR YOUR PROJECT

FROM THE EXPERTS AT

**V**  **LTSERVER**  
DIGITAL ELECTRICITY™

Even with the best of intentions, the buildings we occupy tend to waste a lot of energy.

Buildings are increasingly under pressure from authorities and the public to address environmental sustainability. This has a significant impact on the approach to new construction and retrofits.

Efficient workplaces save energy while boosting productivity. Designing a space with a smart design and green attributes will yield far greater employee performance than a substandard space.

Read on for 5 solutions for increased sustainability that will increase efficiency, lower costs, and more!



# 1

## Choose Safety

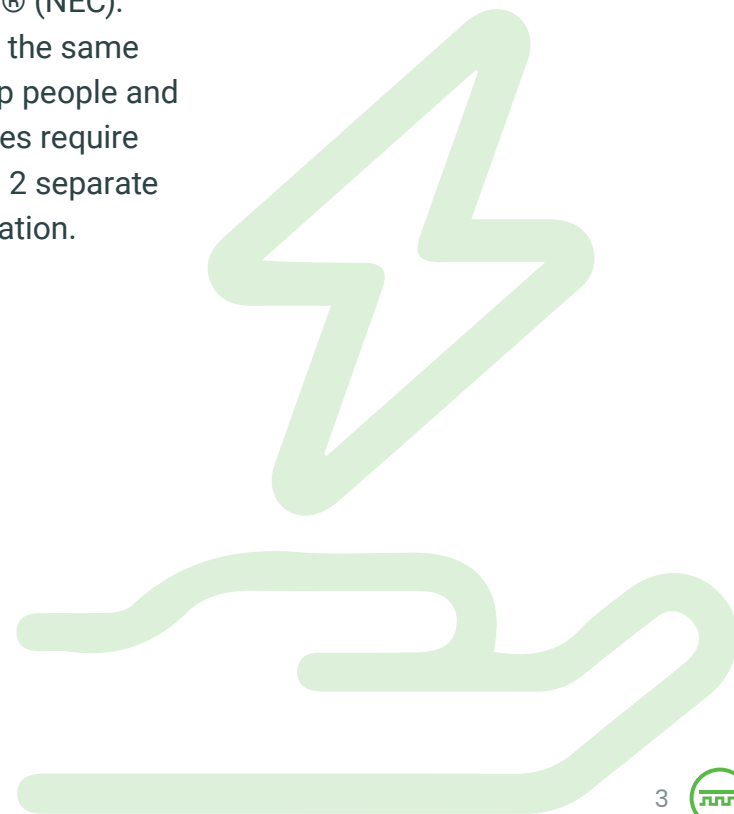
**Traditional electricity is dangerous.** The available power from the typical wall outlet has 20x more energy than is needed to stop your heart. A circuit breaker cannot detect or prevent a fire from faulty outlets or wiring. That's why there are such strict regulations defined in the National Electrical Code® (NEC). AC power and data communications cannot share the same pathways, raceways, or enclosures by code to keep people and buildings safe. This means that many digital devices require 2 separate contractors to pull 2 separate cables in 2 separate pathways to deliver power and data to a single location.

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### SUSTAINABLE CHOICE

Using an all-DC infrastructure is safer, more sustainable, and qualifies you for LEED credits.

But more on that later.





# 2

## Increase Flexibility

**Buildings are not getting any younger!** Today, almost 50% of buildings were built before 1980. 80% of the building stock that will exist in 2050 has already been built.

It's easy to design a NEW building that is energy efficient, but retrofitting old buildings is much more challenging. Occupants can be disturbed or displaced because of construction, especially in a building where lead paint or asbestos may still be present.

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### SUSTAINABLE CHOICE

Digital Electricity enables the digital transformation of older buildings by reducing the need for new conduit, poke-throughs, and/or core-drilling. Existing data pathways can be used to deliver high power wherever it is needed. Using distributed design topology can eliminate the need for new IT/electrical closets which older buildings just may not have.

# 3

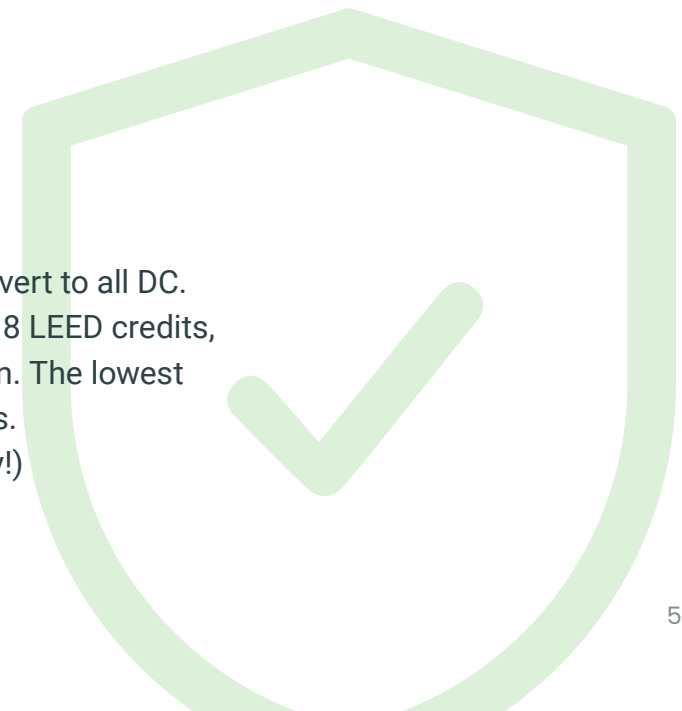
## Focus on Green Certification

LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world. Building owners and project teams choose LEED certification to inform, benchmark, and celebrate their sustainability goals and achievements. LEED provides a framework for healthy, efficient, and cost-saving green buildings. **Using an all-DC infrastructure qualifies for up to 18 LEED credits, putting your project well on its way to certification.** The lowest level of LEED certification only requires 40 credits!

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### SUSTAINABLE CHOICE

Choose LEED-approved design products and convert to all DC. Using an all-DC infrastructure qualifies for up to 18 LEED credits, putting your project well on its way to certification. The lowest level of LEED certification only requires 40 credits. (VoltServer's Digital Electricity is a DC technology!)





# 4

## Prioritize Efficiency

Renewable energy sources like solar natively have a DC output. Most modern devices and appliances also natively run off DC (that's why you need "power bricks" or "wall warts" to power phones and laptops).

Converting from DC at the renewable source, to AC for distribution, and back to DC for the load is wasteful.

**Up to 20% of power is lost simply in conversions.**

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### SUSTAINABLE CHOICE

An all-DC building powered by Digital Electricity can use substantially less energy by eliminating inefficient conversions. Improving the efficiency of power distribution requires less renewable energy equipment.



# 5

# Reduce Your Carbon Footprint

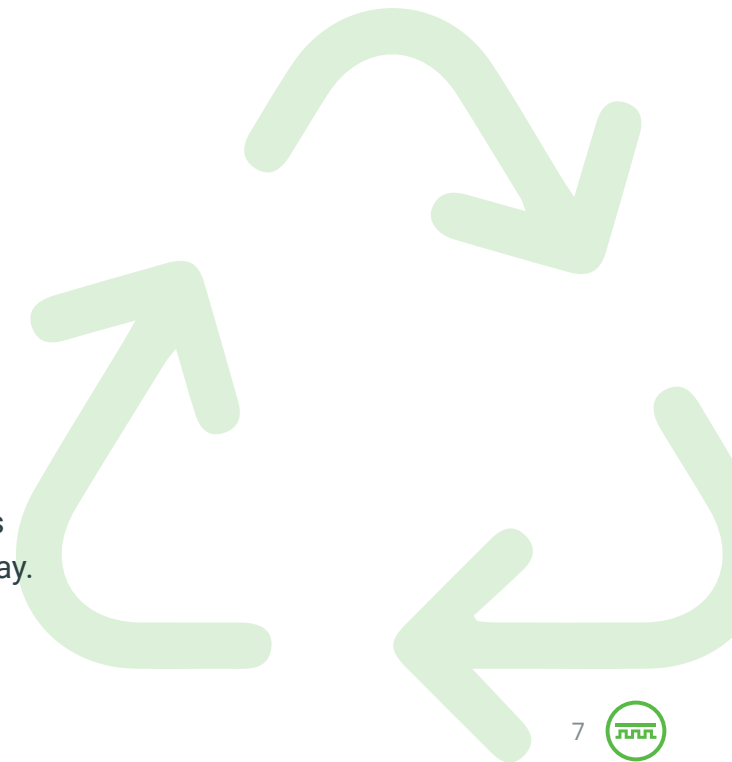
In the building industry, embodied carbon refers to the greenhouse gas emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building materials.

**Traditional power architecture has a significant carbon footprint.**

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## SUSTAINABLE CHOICE

A centralized digital power architecture reduces the proliferation of lead-acid batteries for backup power in edge locations. Using fewer physical materials reduces the environmental impact across the entire supply chain. Digital Electricity reduces consumed material by eliminating the need for conduit. Thinner wire decreases commodity costs and more wire can be used per raceway.



# VOLTSERVER

DIGITAL ELECTRICITY™

Since 2015, VoltServer has been a leader in sustainable power solutions for thousands of projects around the world including stadiums, Class A offices, hotels, public transportation hubs, and more.

VoltServer's Digital Electricity™ is intelligent, safe, and sustainable. It saves time and money by **installing five times faster than traditional AC**. Its simplicity reduces material and a building's carbon footprint.

Interested in how VoltServer can support your project and provide you with a new level of sustainability?

[Contact us today for a free demo.](#)

