



# Cence LV Hub

The Best Way to Power Lighting

Prepared for:

2025-07-15



# Cence Power Introduction

Cence-able

“Over 2 Million Square Feet of Lighting (Active 2025 Orders)”



Today, over 32% of power consumption in buildings is DC.

This is expected to grow to over 74% by 2030

## High Growth DC Applications



LED Lighting Systems (LVDC)



Telecom Wireless Densification (HVDC)



DC Motors (HVAC), (LVDC/HVDC)

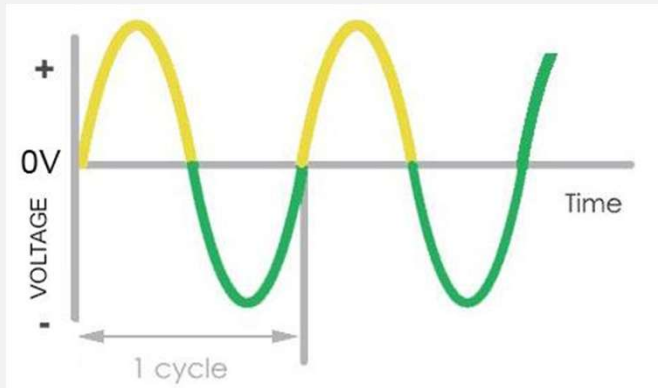


EV and Fast Charging (HVDC)



Renewables and Microgrids (LVDC/HVDC)

# AC vs. DC Power



## Alternating Current (AC) Power

AC power changes its polarity (or direction of current flow) typically 50 or 60 times per second, giving it a frequency of either 50 or 60 hertz, or Hz for short.

vs.



## Direct Current (DC) Power

Direct current (DC) power doesn't have a frequency. This is because its current flows directly through cables without changing its polarity.

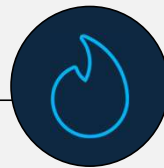
# Converting from AC to DC is inefficient.

Up to 40% of the energy we convert is lost.



## The Grid is AC, but our usage is DC

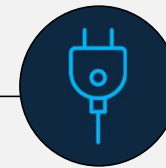
Utilities supply AC power and buildings today require DC distribution.



## Micro- conversions waste energy.

Converting from AC to DC at the device is inefficient.

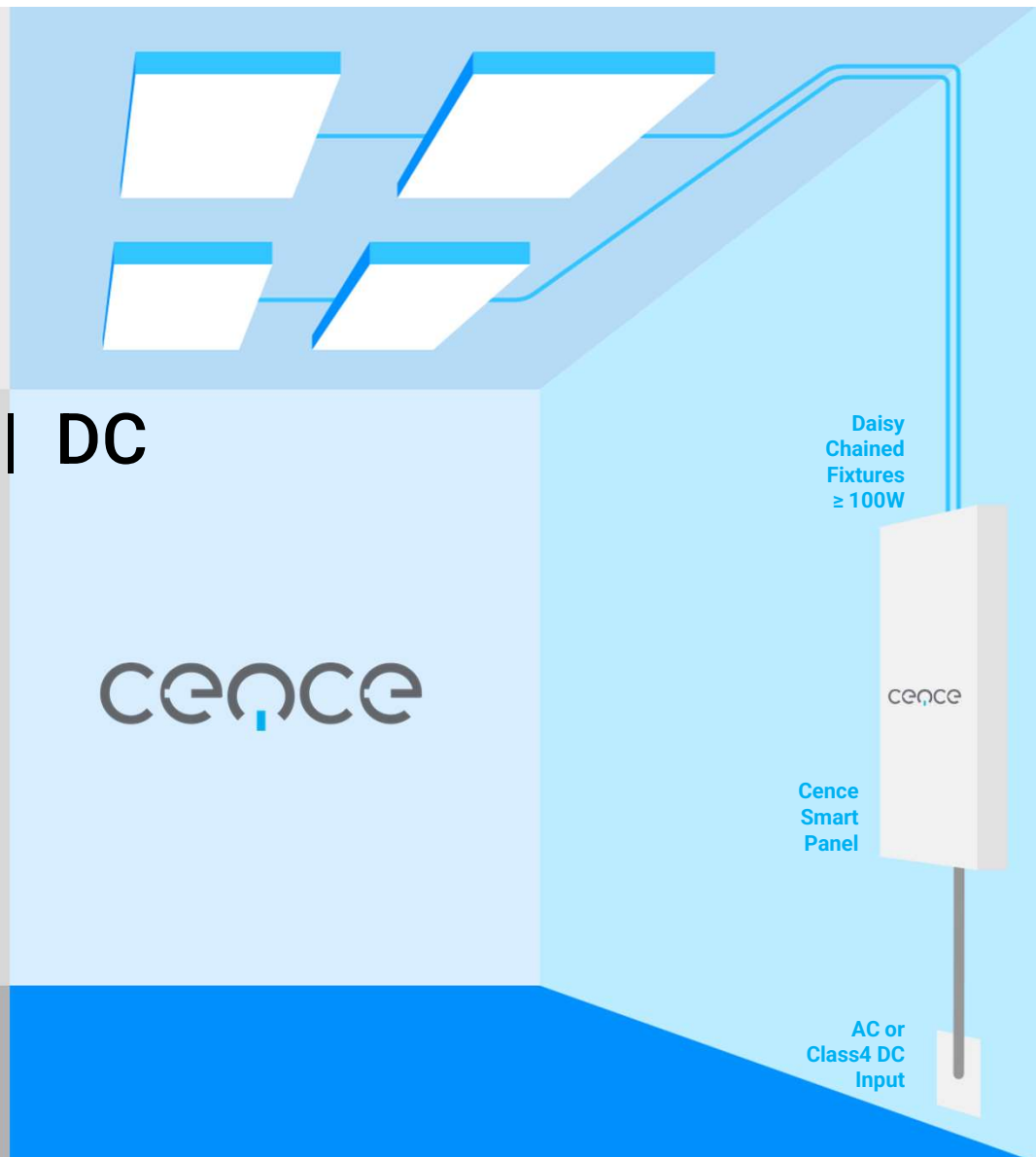
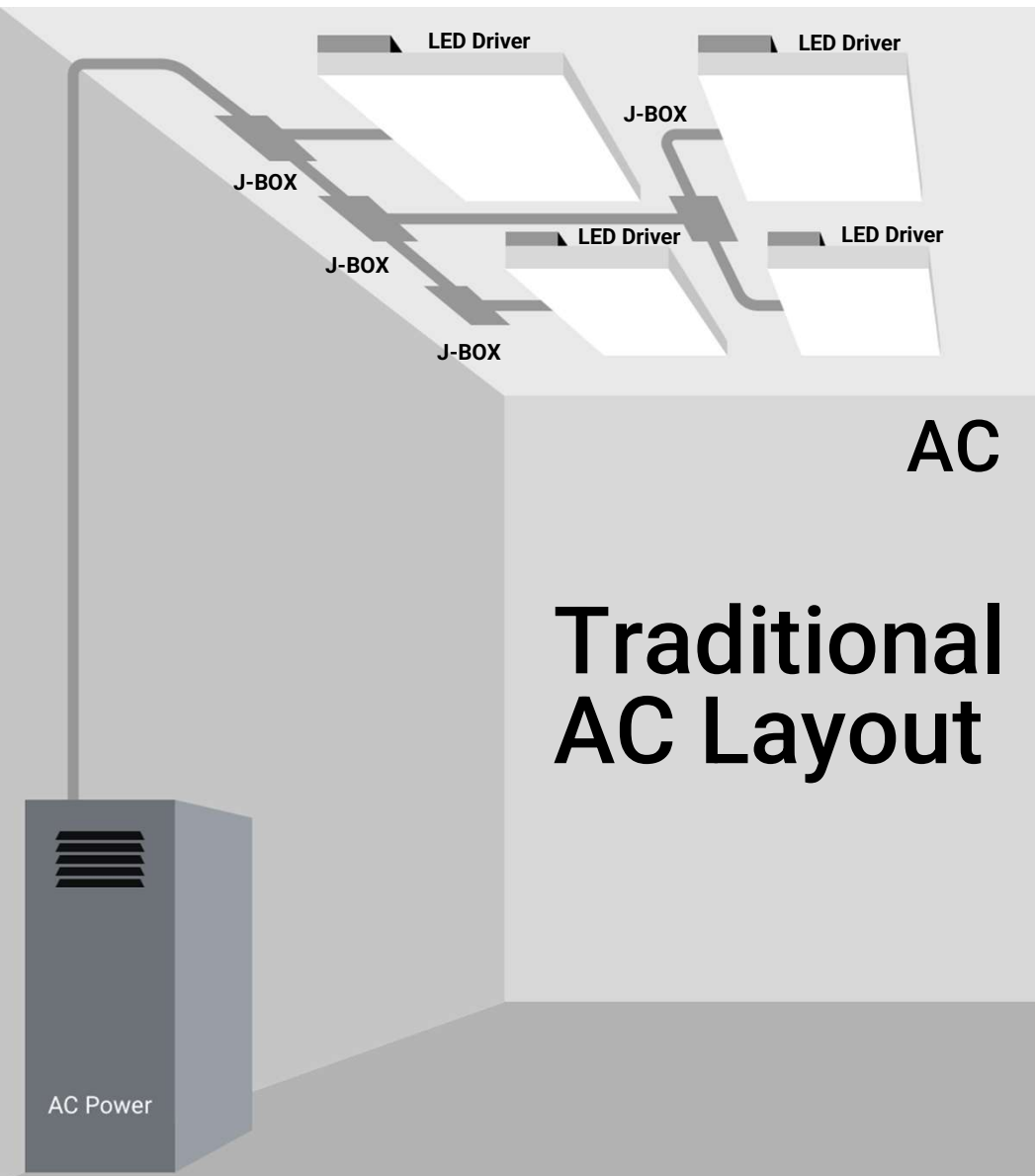
The process loses, on average 20% of the energy to heat.



## Conversion efficiencies <45W are unregulated.

And when wattage is >45W, efficiency is only regulated to 85%.

So, manufacturers tend to reduce cost and size by sacrificing efficiency.

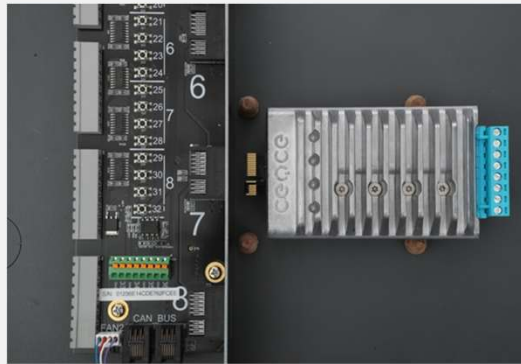




## The Solution

	AC LAYOUT	DC LAYOUT
CABLING	BX: \$2.10/ft THNN/THWN: \$0.70/ft	16/2 LV: \$0.15- \$0.70/ft 18/2 LV: \$0.10- \$0.40/ft
CONDUIT	\$0.50-\$10/ft	Not Required
JUNCTION BOX	+\$150 (Material + Labor)	Not Required
LED	Various Prices	Driverless: 15%- 30% Cheaper

# How It Works



# Product Specification

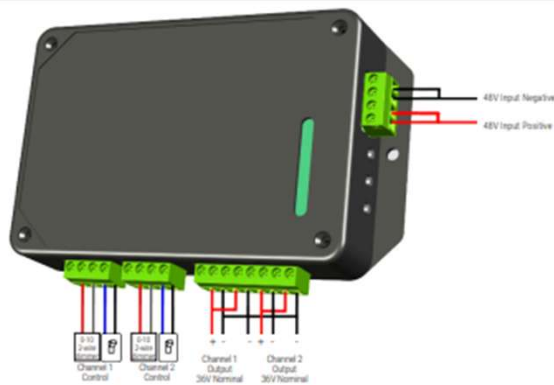
- 8 modules, 400W each
- 4 channels per module 100W each (32 total channels)
- 3kw total peak power
- Control options:  
Built in: dry contact, DMX, IEC 62386 (DALI), CAN bus, EnOcean
- Expansion port: 0-10V, BACnet, wireless, etc...

# Remote Node Specification

## How it Works

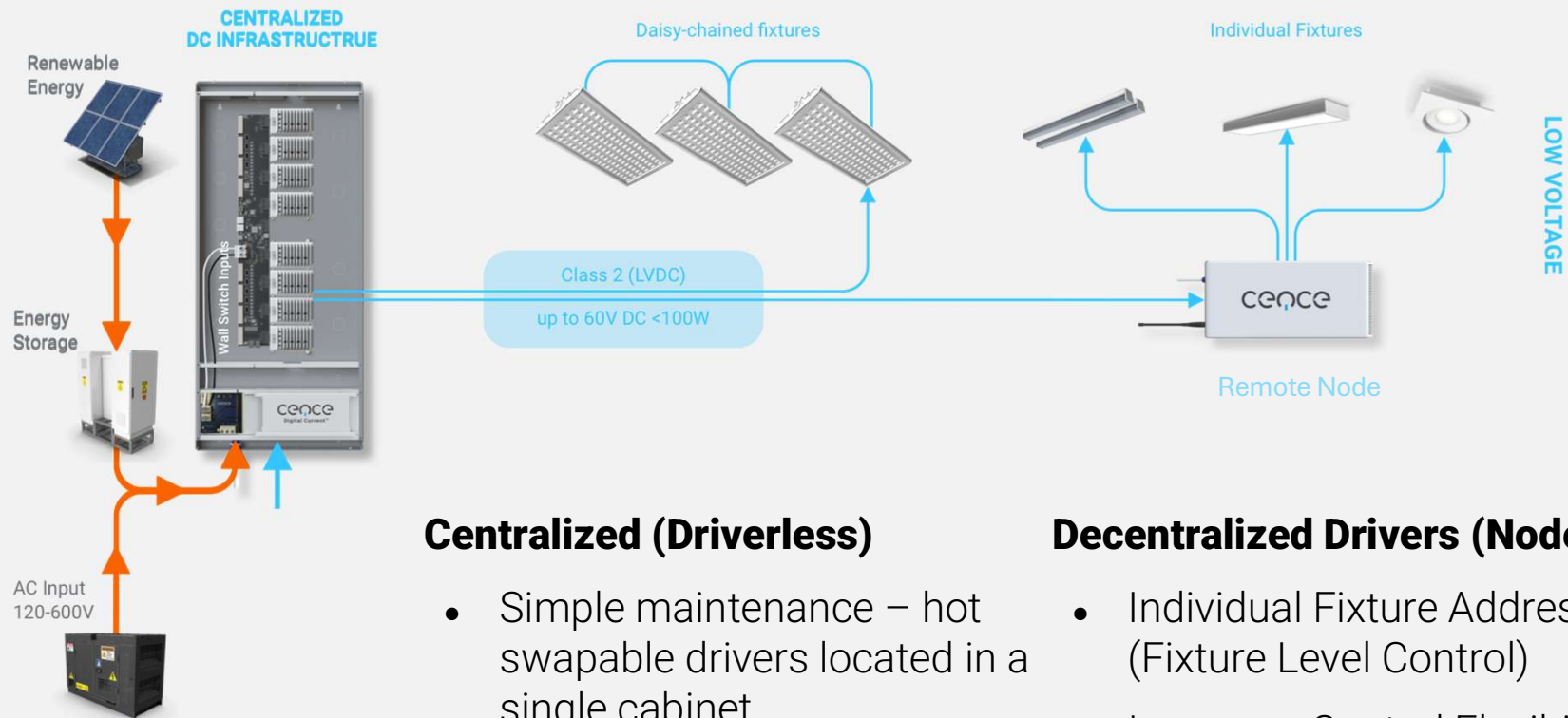


Example wiring diagram:



- **Input: 45-60V, 2.2A Maximum, <math>\leq 100W</math>, Daisy-Chain Compatible**
- **Output: Up to 4 x 20V – 42V, 5A Maximum <math>\leq 96W</math> Default: 36V**
- **Control:**
  - Up to 2 x 0 ~10V, configurable minimum dim (Dim to off capable)
  - Up to 4 x Dry Contact Input Interface, Configurable
  - 3 x Menu Buttons
  - 5 x RGB LEDs Menu Configuration and Status Display

# Driverless & Remote Node topology



## Centralized (Driverless)

- Simple maintenance – hot swappable drivers located in a single cabinet
- Drivers easily replaceable

## Decentralized Drivers (Nodes)

- Individual Fixture Addressability (Fixture Level Control)
- Improves Control Flexibility

# Online Programming & Commissioning Specifications Portal



### LM1 Configuration | Slot 2

Channel Name	LED	LED Type	Quantity	Total Current (mA)	Restore on Power Failure	Group Membership (1-255)
<input type="text" value="Channel Name"/>	<input type="text" value="Search for fixture"/>	<input type="text" value="White"/>	<input type="text" value="QTY"/>	<input type="text" value="mA"/>	<input type="text" value="NO"/>	<input type="text"/>
<input type="text" value="Channel Name"/>	<input type="text" value="Search for fixture"/>	<input type="text" value="White"/>	<input type="text" value="QTY"/>	<input type="text" value="mA"/>	<input type="text" value="NO"/>	<input type="text"/>
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### Switch Configuration

Switch Input 1   Switch Input 2   Switch Input 3   Switch Input 4

**Switch Input 1**

<b>Switch Type</b>	<b>Switch Program</b>	<b>Target Type</b>	<b>Target Address</b>
<input type="text" value="Momentary"/>	<ul style="list-style-type: none"><li>✓ NOT USED</li><li>On/Off - Full</li><li>On/Off - Last Level</li><li>On/Off - Dim Up/Down</li><li>On/Off - Dim Up/Down - Last Level</li><li>On (full) / Dim Up</li><li>On (last level) / Dim Up</li><li>Off / Dim Down</li><li>CCT Tune Cooler/Warmer</li><li>CCT Tune Cooler</li></ul>	<input type="text" value="NOT USED"/>	<input type="text"/>

# LVDC

## UL Certifications

### **UL Certifications for a Class 2 Power System (Ex. Cence LVDC)**

Electrical Compliance: Cence LV Hub Complies with UL 916 (UL standard for safety energy management equipment)

Other Related UL:

- UL 2108 (Low Voltage Lighting Systems)



# Cence Cuts Cost, Not Capability

35% Project CapEx savings

25% Energy consumption reduction

*“Effortless maintenance, it isn’t just about saving time”* Director of Procurement



Completed and Processing orders of over 500 Cence LV Hubs in 2025 for 10 Hospitals & Medical Offices

Achieved an average of 35% CapEx savings compared to traditional AC-based lighting system installations.

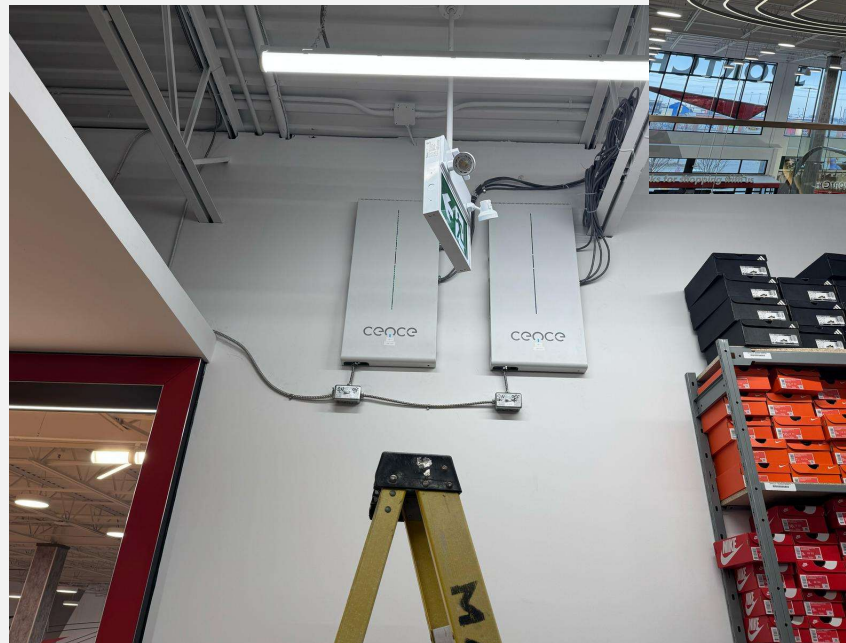
*“Far Outperformed competition on capability & power density”* Consulting Engineer for Hospitals



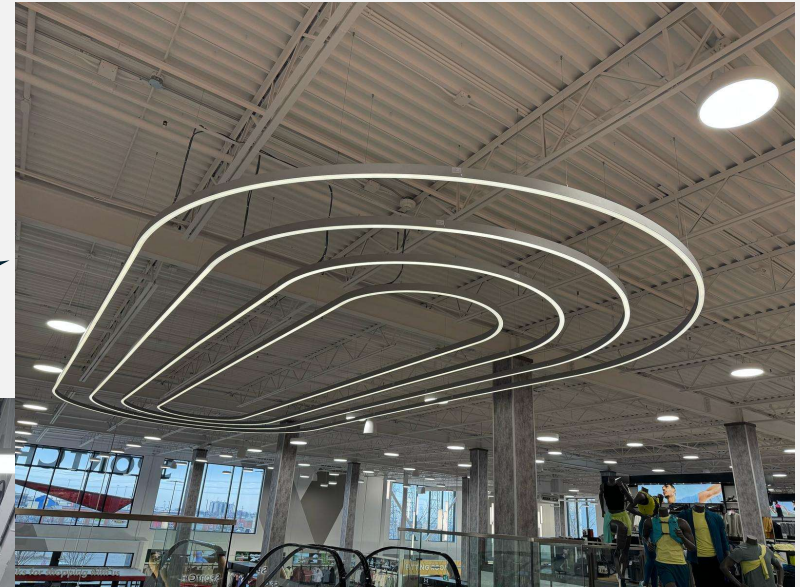
# From Complex to Clarity

*"Made our custom design process easier with a plug and play option like Cence!" LED Manufacturer*

SportChek specified a suspended, curved light fixture that posed significant challenges in housing traditional drivers.







*"Electrician friendly simple installation" Electrical Contractor*



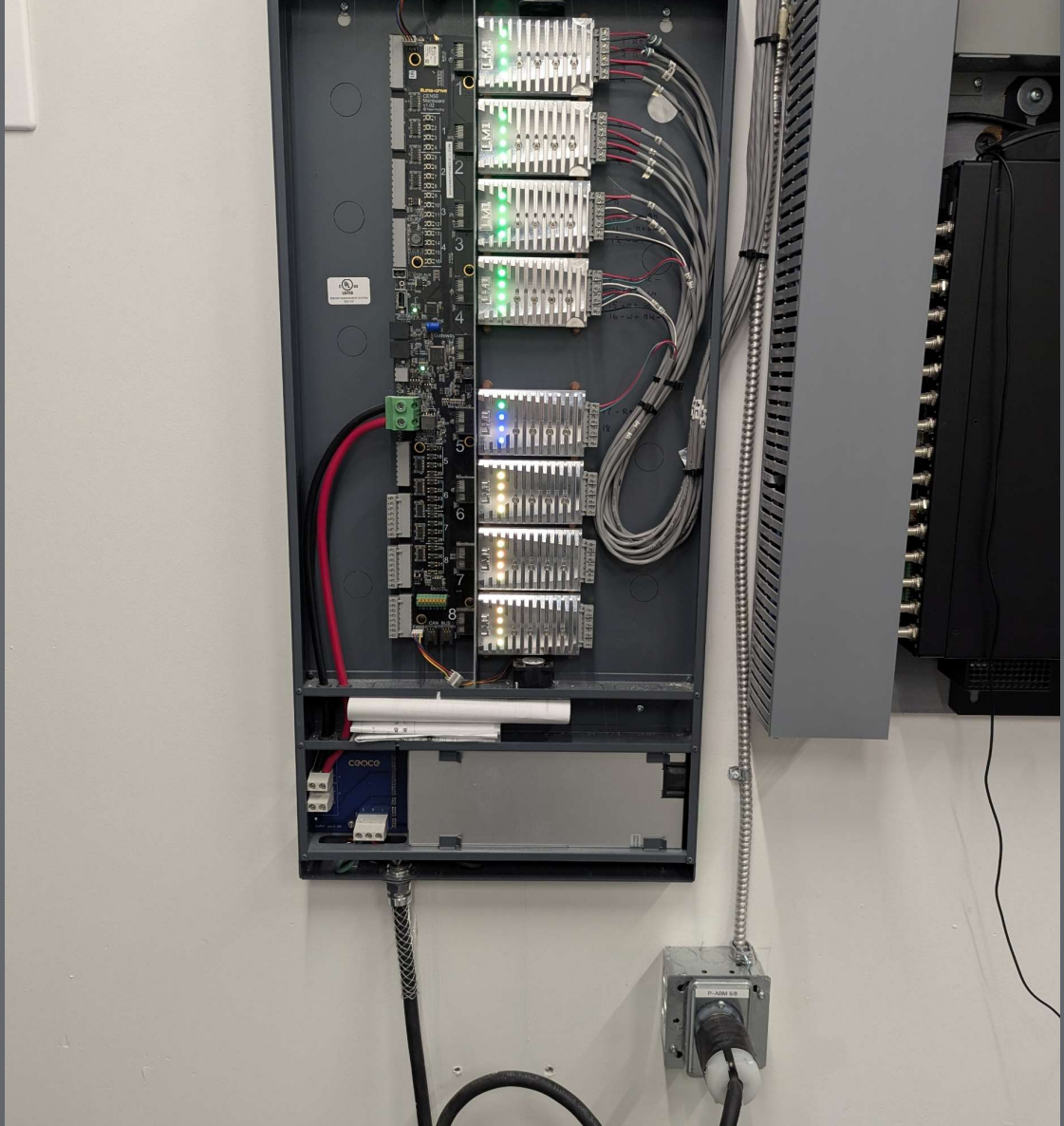
# Competitive Landscape

Make Cence of Your Power

	 CENCE LV HUB	 POE	 LED DRIVER	 DRIVERS IN A BOX
<b>TOTAL POWER</b>	3kW	1kW	5W-200W	300-1800W
<b>OUTPUTS</b>	32	24	1	6-24
<b>COVERAGE</b>	5000sq.ft	1600sq.ft	Single Fixture	500-3000sq.
<b>MAINTENANCE</b>	Accessible, Hot Swappable Modules	Requires IT Technician	Hard to Access	Requires De-energizing entire box
<b>EFFICIENCY (Typical)</b>	95%	88%	85%	85%









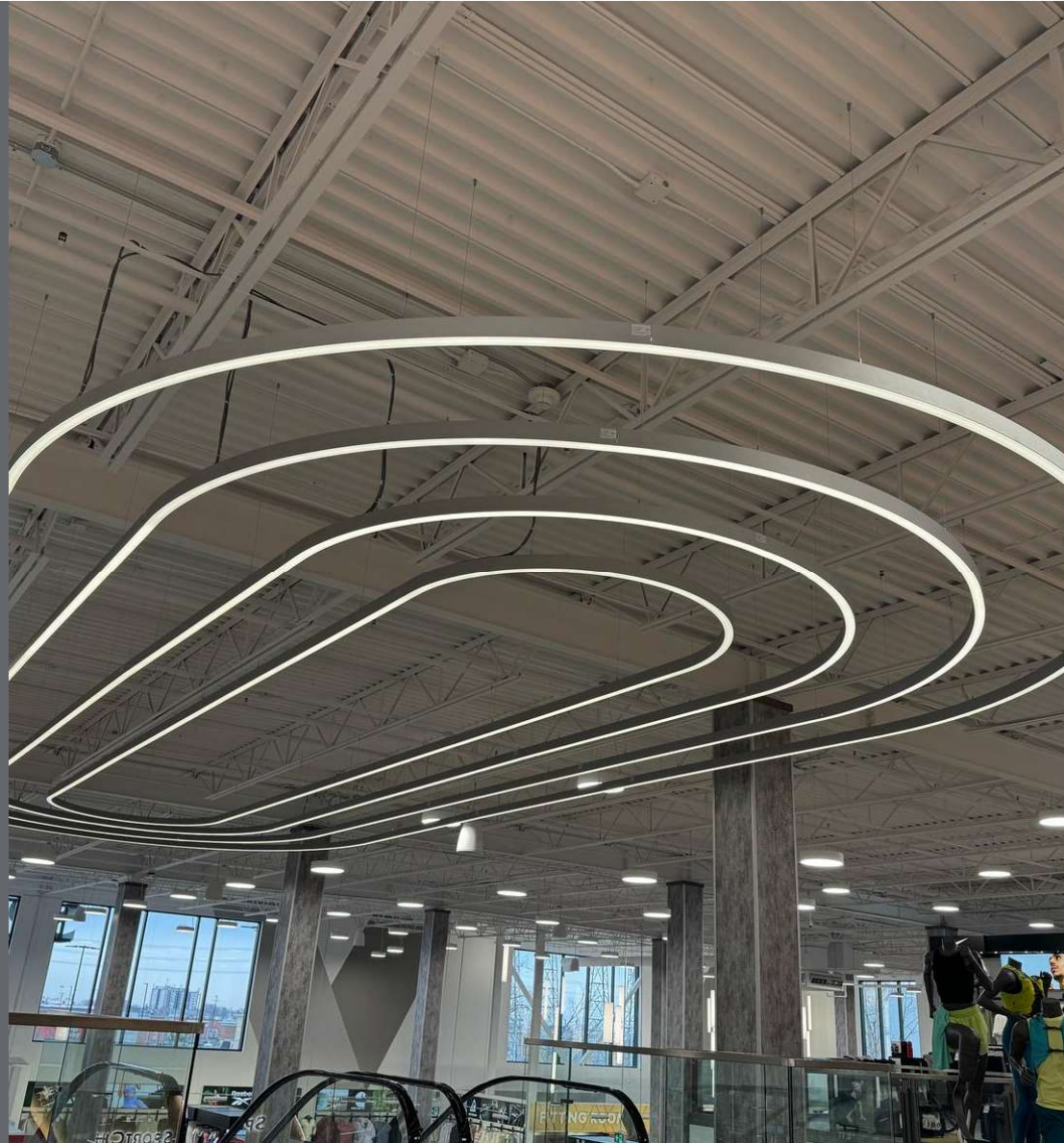


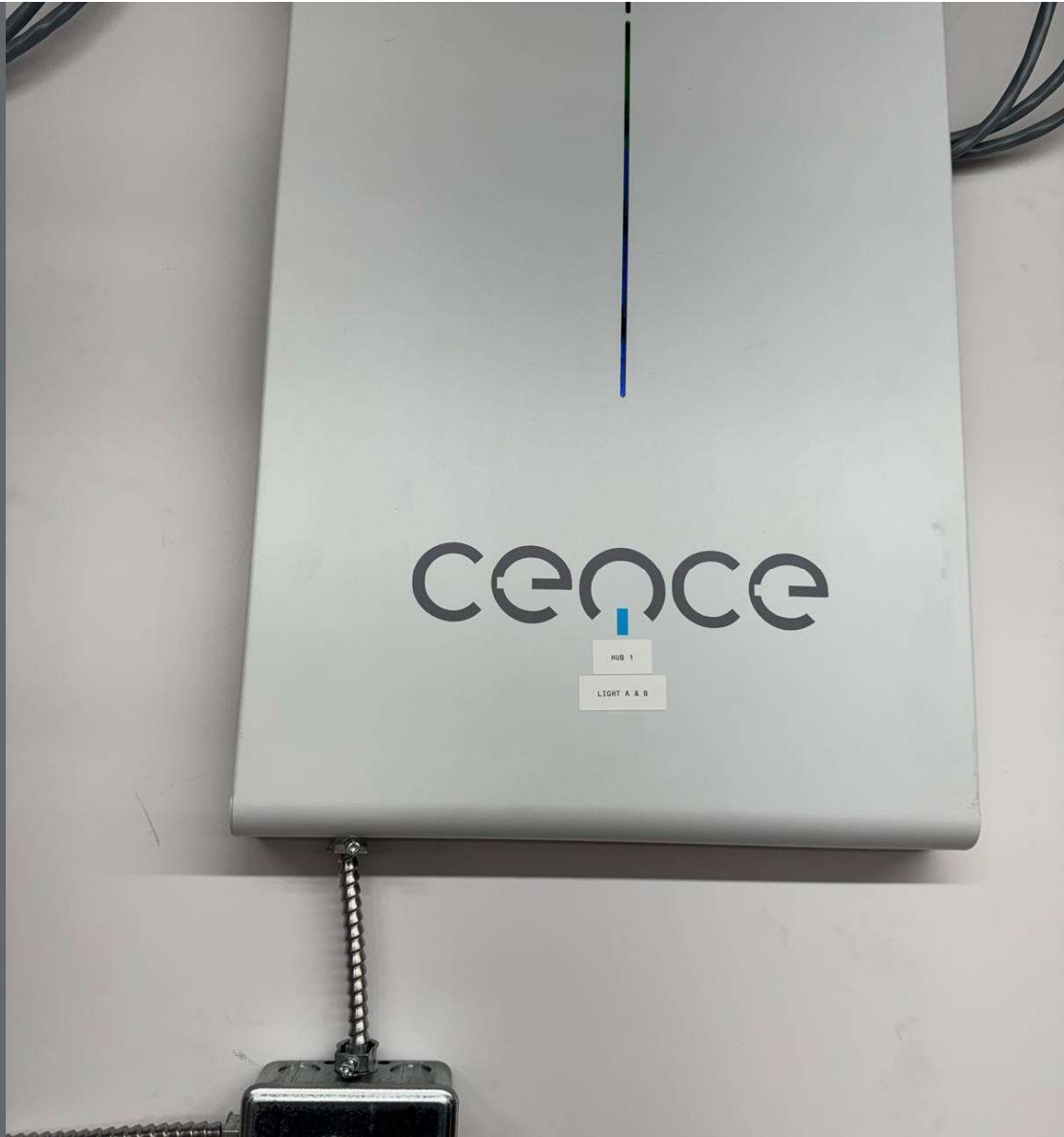


Handwritten text on a green label in the top-right rack:  
1. 1.6  
2. 0.923  
3. 0.9  
4. 0.8  
5. 0.7  
6. 0.6  
7. 0.5  
8. 0.4  
9. 0.3  
10. 0.2  
11. 0.1

Small white label in the top-left rack with illegible text.

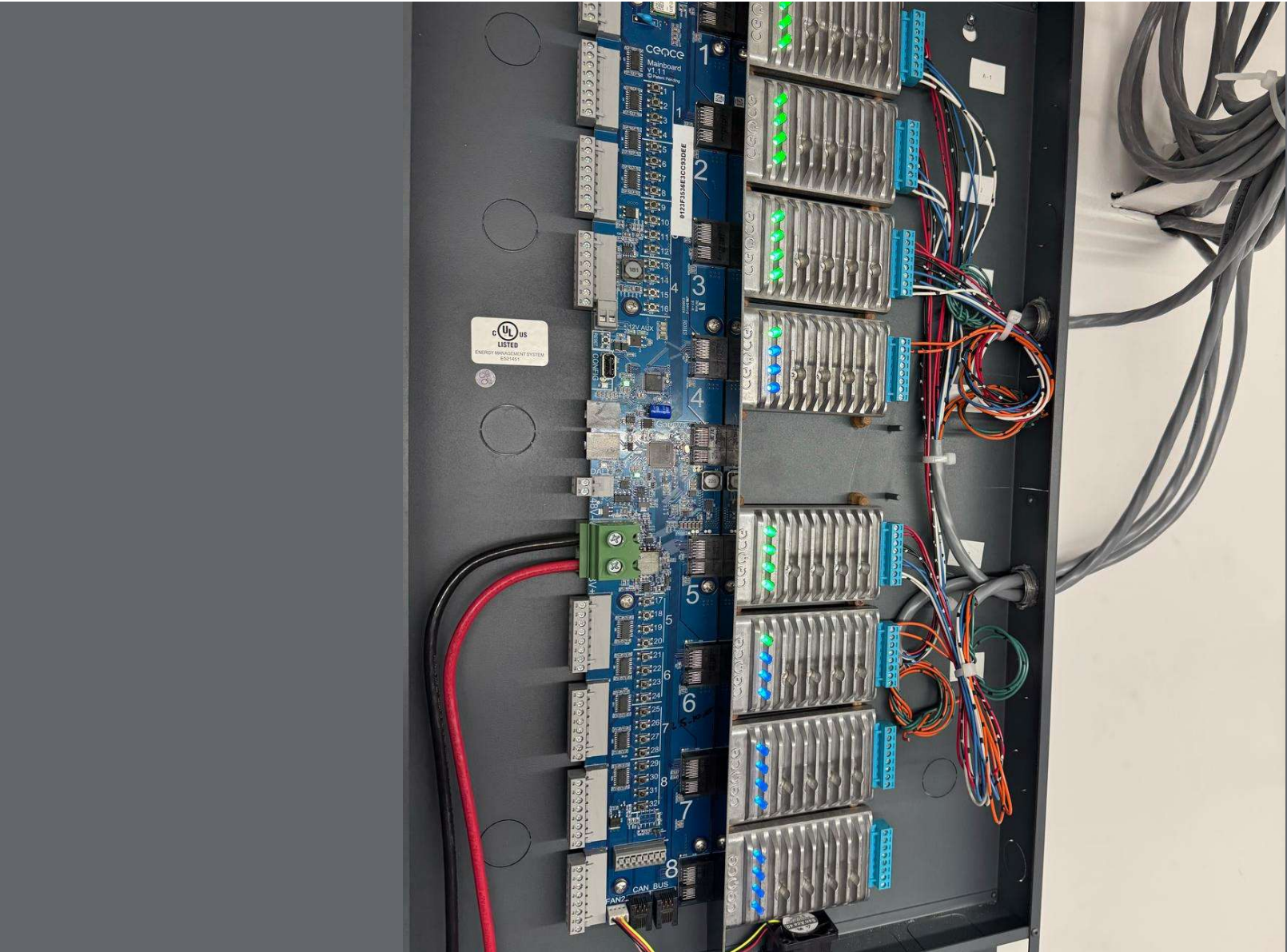


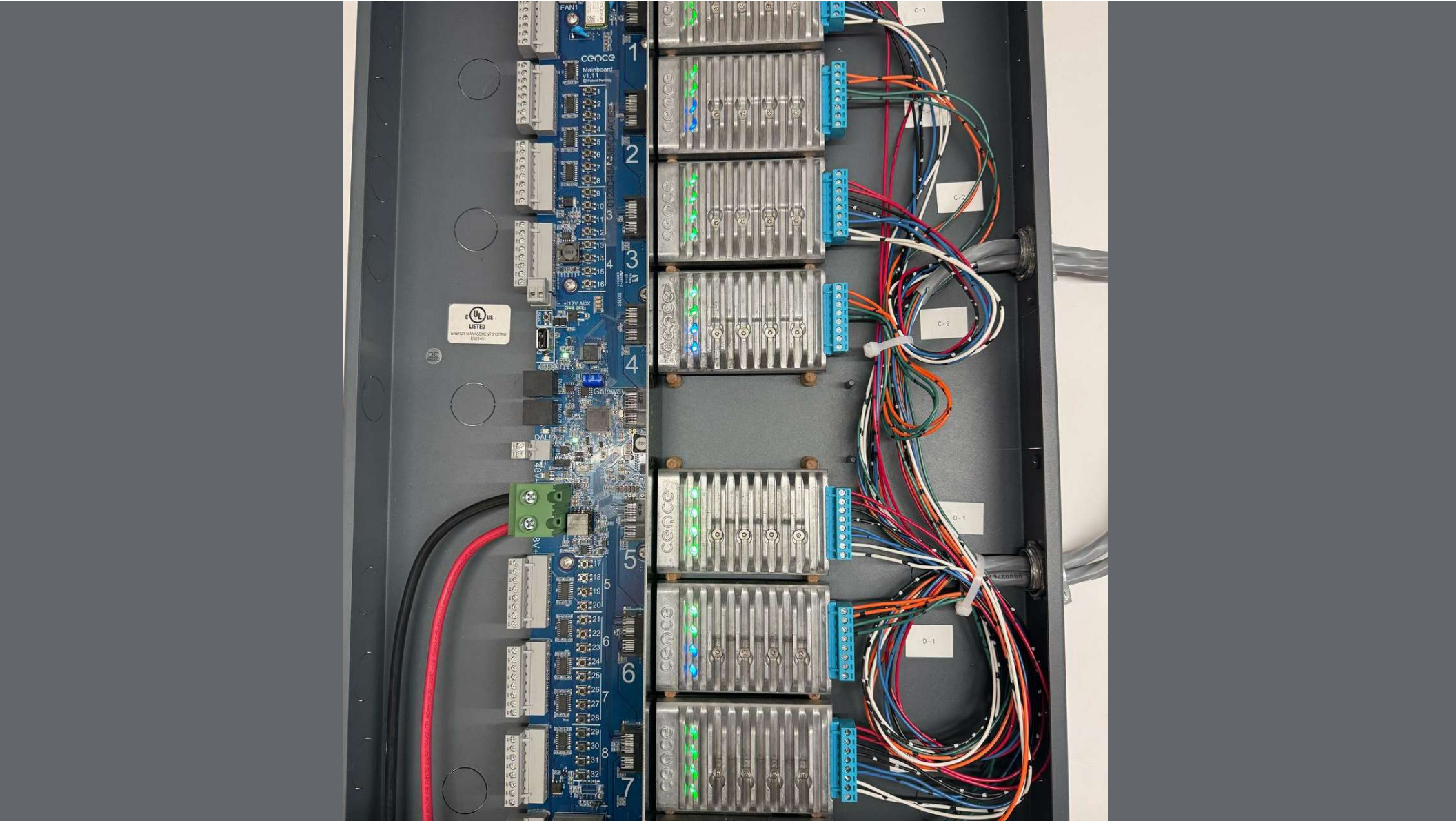




CENCE

HUB 1  
LIGHT A & B





# Healthcare case study - Over 1MW of power in 2025



Digital Current™

It just makes

CEQCE™

Thank You

