



Zoozter-100 Pilot AI data centers

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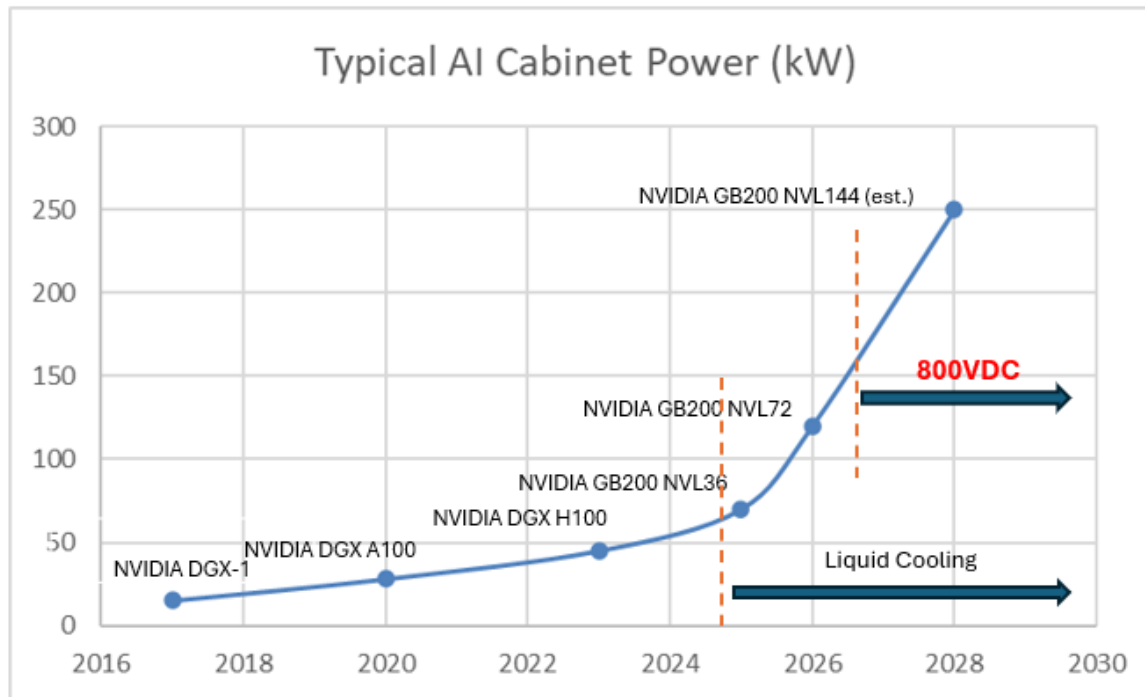
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Proposed pilot based on the existing Zoozter-100@NYPA

- Zooz proposes using the existing Zoozter-100 system as a pilot platform for the data center market.
- The system will be upgraded and adapted to support the new application.
- In parallel, Zooz develops a new system with much higher power to support the future needs of this market.

AI Racks Power Distribution – New Challenges and a Major Technology Change

Moving to 800VDC as the power consumption per rack is going up to 100's kw



Large msec-scale swings of power result in voltage instability, failures at the utility, transformer level, and at the UPS level

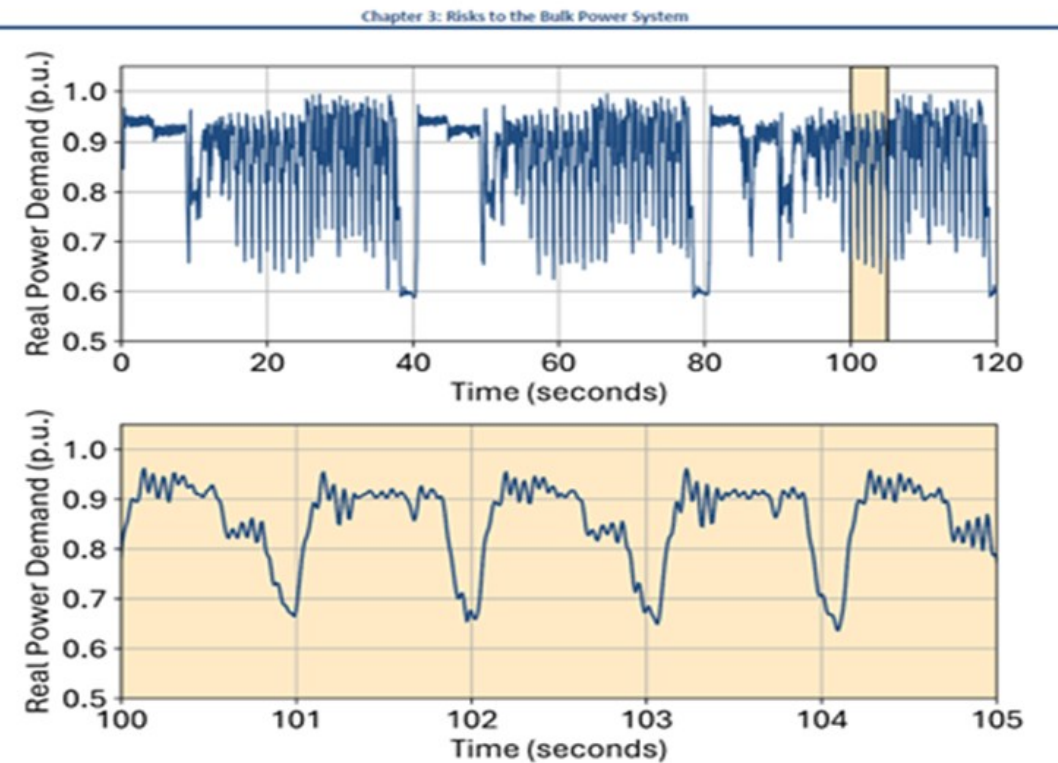
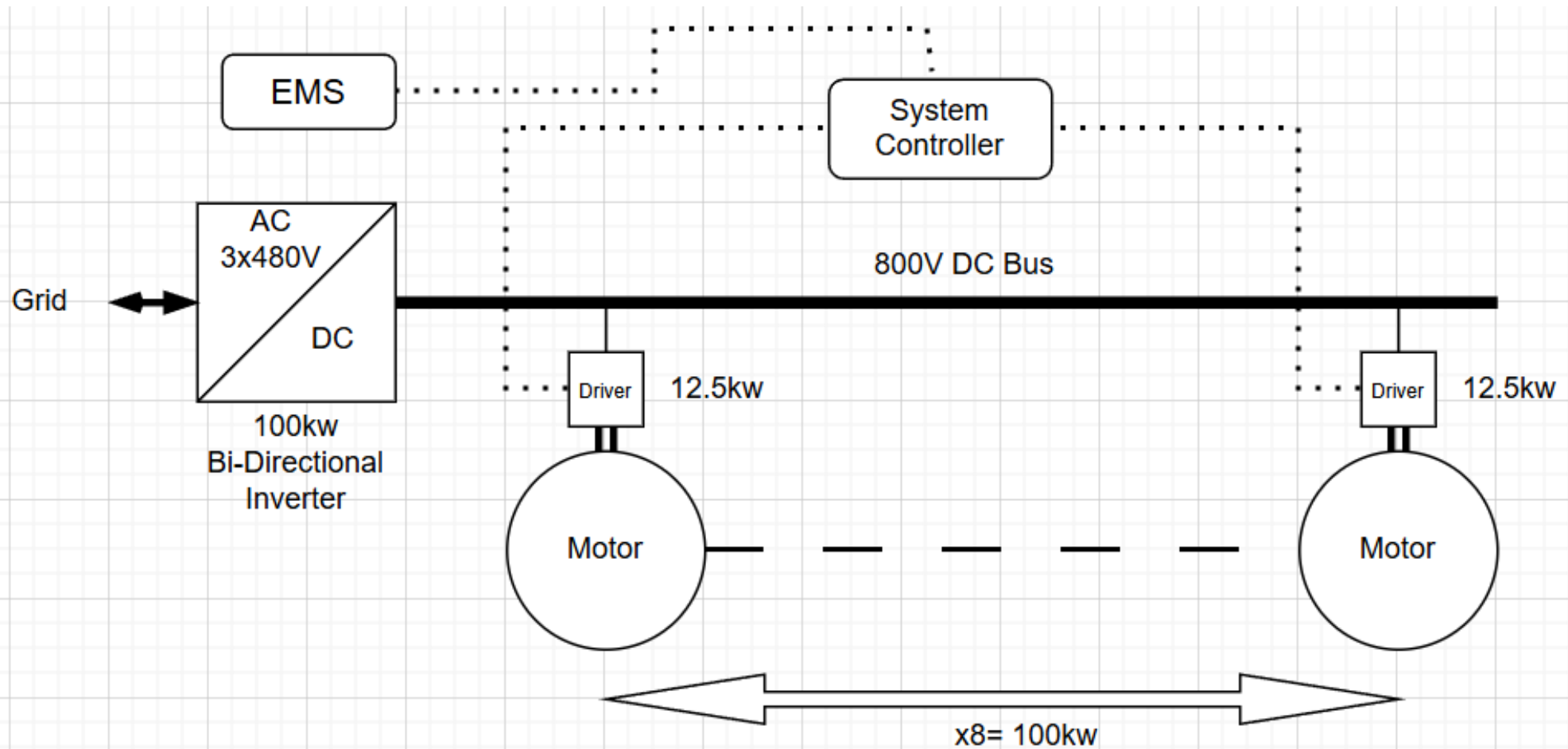
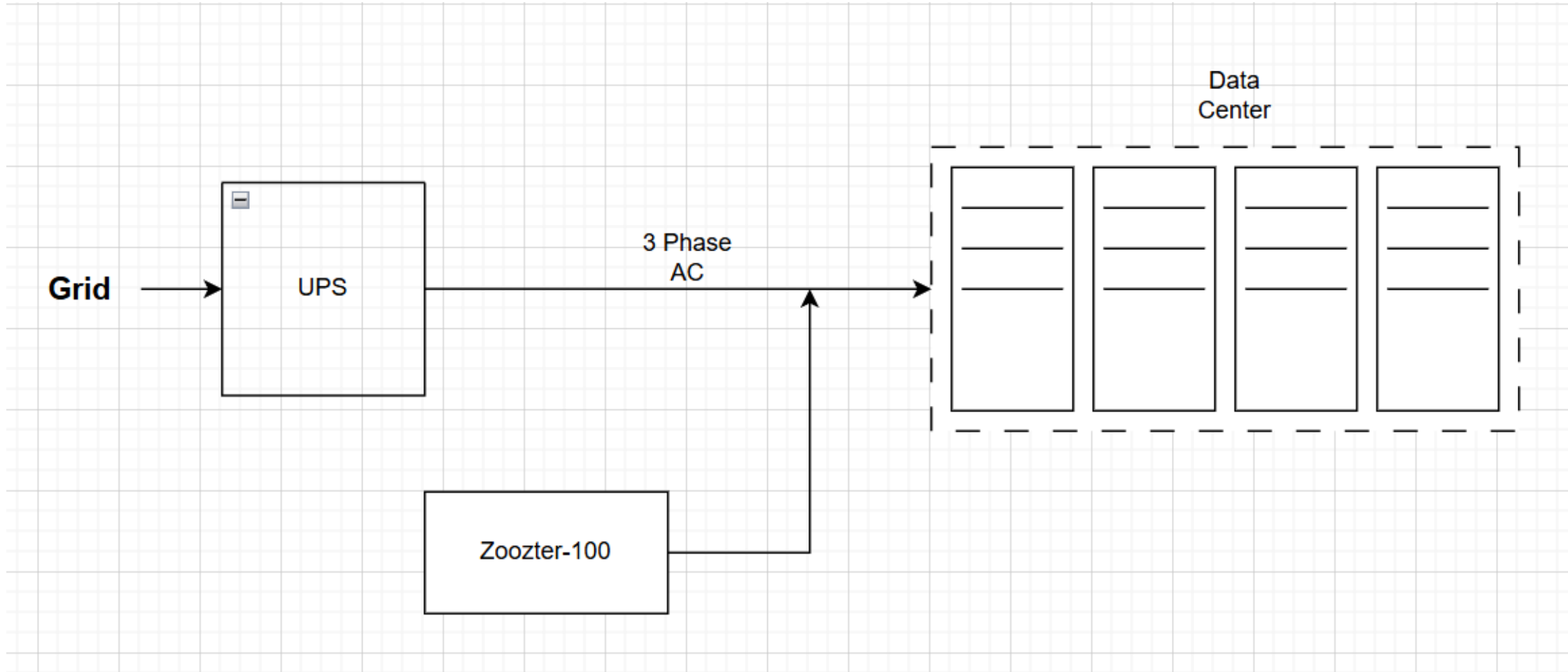


Figure 3.8: Example AI Data Center Load Profile During Training Over Two Minutes (Top) and in a Five-Second Period (Bottom)

System Diagram Zoozter-100



Zoozter-100 in AC-fed Data Center

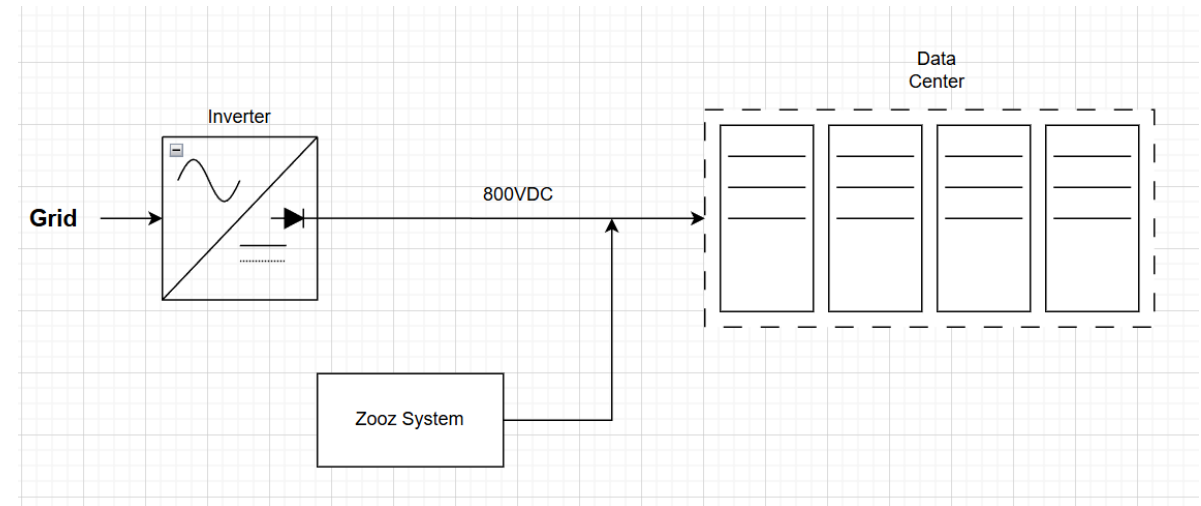


ZOOZ Unique Solution for DC fed Data Centers

High Power Flywheel DC Bus Stabilizer/Booster and UPS

Improve data center reliability and prevent GPU downtime

1. Direct connection – minimize pass-through losses
2. DC Bus Stabilization with mili-sec response time, saves capacitor and PDU volume near the Rack
3. Power booster
4. Protect the grid from the power surge and eliminate grid loss
5. UPS function in case of a power outage



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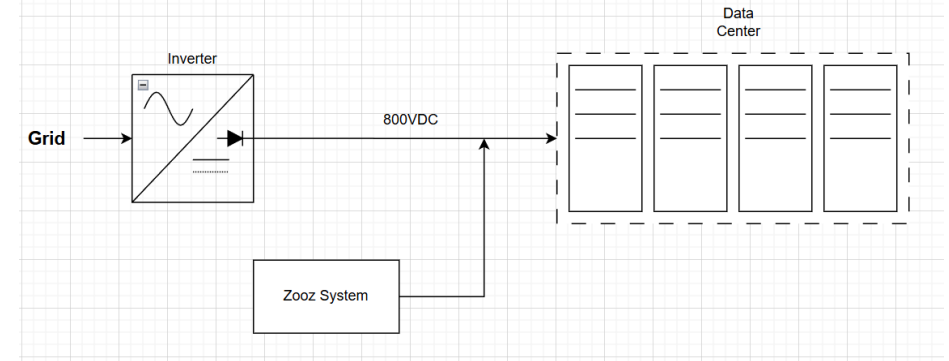
Direct Parallel Connection

Parallel connection to the 800V DC.

Power flows directly from the inverter to the load

Improves reliability and minimizes conversion losses

"Zero-second" reaction time enables seamless integration



Stabilize DC Bus Voltage

Continuously monitors the 800 V DC bus

Maintains voltage within limits despite rapid load fluctuations

Dynamic Power Buffering

Absorbs and supplies fast-changing load currents

Shields inverter and upstream grid from high-frequency power swings

Reduces stress on power electronics and extends component lifespan

Grid Impact Mitigation

Grid experiences only slow, smoothed power variations

Eliminates grid losses and enhances overall site stability

Backup Ride-Through Functionality

Provides several minutes of autonomous DC power during grid outages

Maintains AI rack operation until the generator or alternative source starts

Zooz's Next Gen Flywheel

- Based on the field-proven V8.1 flywheel
- UL and CE certified
- 120kw class modified EV motor
- Fast response time (millisecond)
- Liquid cooling – wide temperature range



1.5MW 20' container / 3 MW 40' container

- Applications: UPS, Fault Ride-Through, Power Booster, Grid Stability, and Grid Support.
- Outdoor and Indoor Installation
- Long lifetime with very high reliability.
- Fully Certified – Safe, no fire hazard ("Zero" safety distance)
- Very Low carbon footprint
- Flexible Connection options :
 - AC 3-phase 480V 60 Hz, AC 3-phase 400V 50 Hz
 - DC 800V



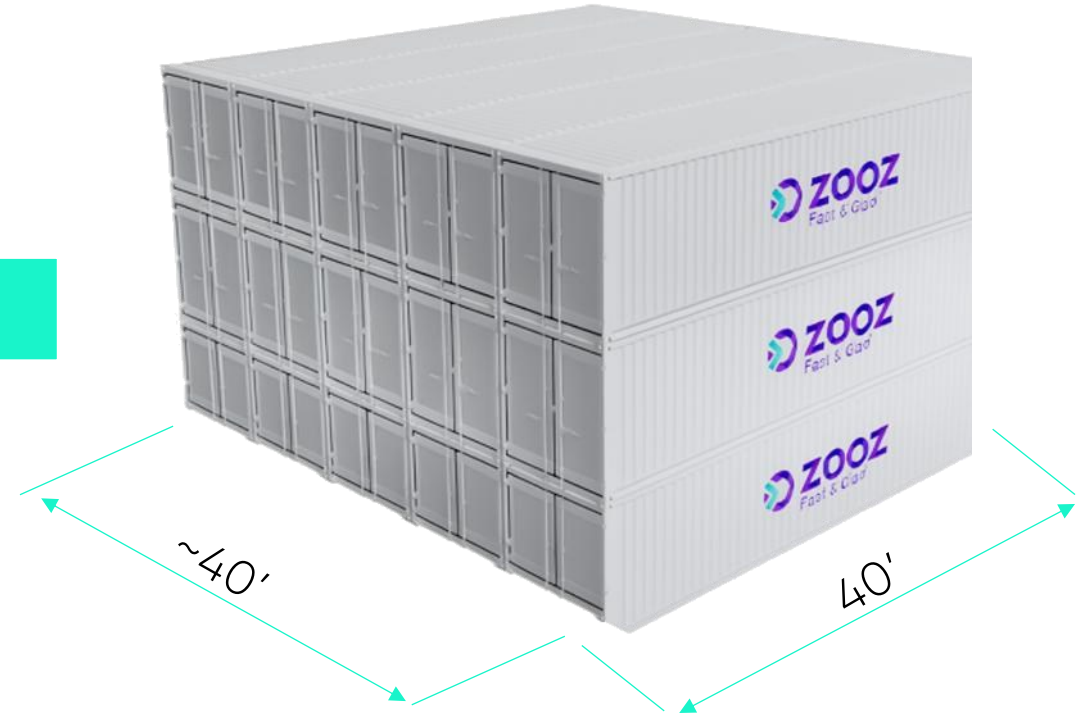
Footprint ~100kw/m²
Budgetary Price ~ \$250K/Mw



Very Low Footprint Solution

The Inherent Fire-Safe Design Enables Ultra-Compact Installation

- **Compact ~45 MW system (15 x 40' containers)**
- Much smaller floor space
- Easily movable



The power backup in both pictures are identical