A Leading Renewable Energy Virtual Power Plant HUB

HUB-e is an energy production, storage and management control system that provides homeowners and businesses emergency back up power, manages electric vehicle charging to balance with optimized utility to customer electrical transmission and distribution to meet peak demand periods, and helps our electrical infrastructure minimize power interruptions. When widely deployed, the HUB-e solution will deliver real energy savings (avg. 15%-20%) while advancing LADWP's targets to supply 55% renewable energy by 2025; 80% by 2036; and 100% by 2045.

NETZERO EnergySystems

Now Showcasing the HUBe "All-in-one" Residential/Commercial Scalable On or Off-grid Renewable Energy System, Powering a Pop-up ADU at the LADWP's La Kretz Innovation Campus (LKIC)

Solar PV/+Battery Storage+V2X EV Charging+VPP Energy Management Solutions

Now's the time, this is the place…

Inspired by the creative spirit of the people of L.A., LADWP's La Kretz Innovation Campus (LKIC) is the front door for cleantech innovation in Los Angeles.

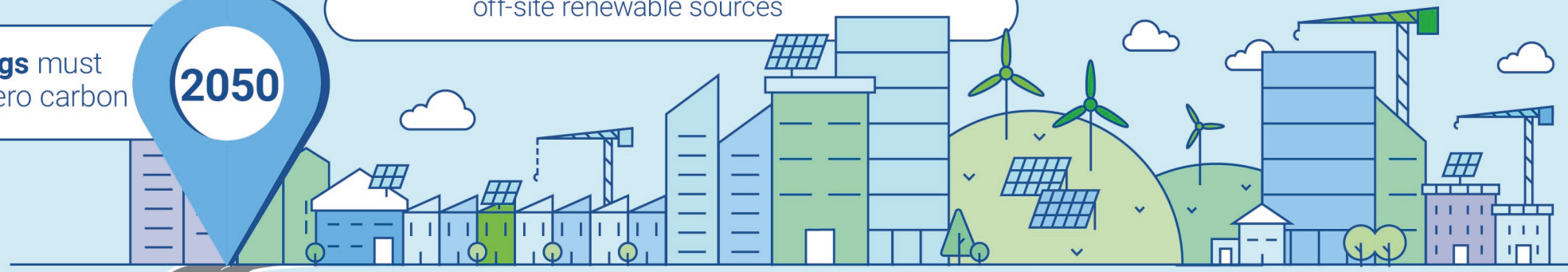
The Campus serves as the home for the Los Angeles Cleantech Incubator (LACI), a launching pad for work in building an inclusive green economy, a hub for incubating startups, transforming markets through unprecedented programs like the Transportation Electrification Partnership, and enhancing the community all over LA.

Advancing Net Zero

A World Green Building Council global project

WORLD GREEN BUILDING COUNCIL

WorldGBC definition:
A net zero carbon building is highly energy efficient with all remaining energy from on-site and/or off-site renewable sources

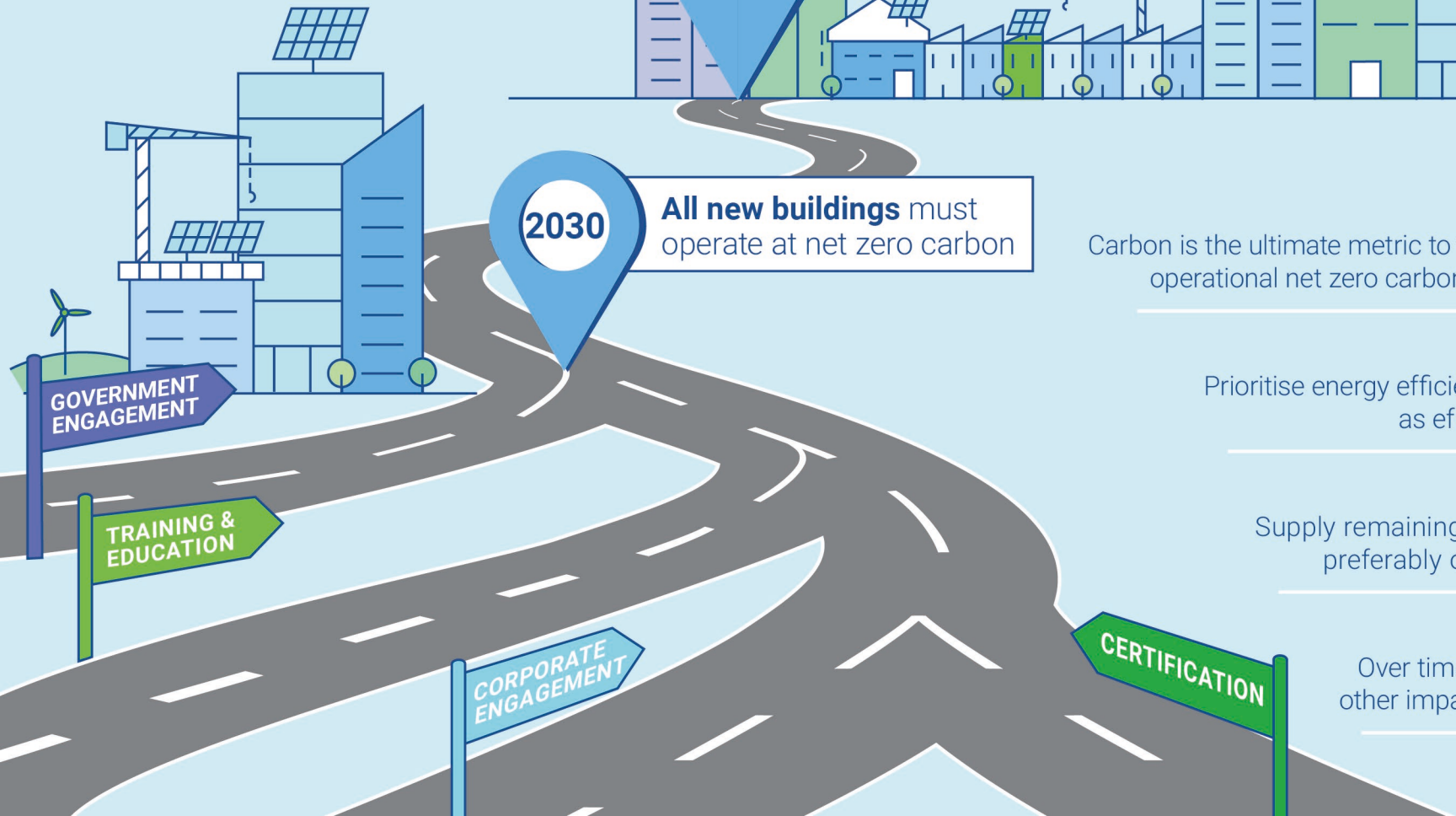


100% of buildings must operate at net zero carbon

2050

2030

All new buildings must operate at net zero carbon



Key Principles

1. Measure and disclose carbon
Carbon is the ultimate metric to track, and buildings must achieve an annual operational net zero carbon emissions balance based on metered data

2. Reduce energy demand
Prioritise energy efficiency to ensure that buildings are performing as efficiently as possible, and not wasting energy

3. Generate balance from renewables
Supply remaining demand from renewable energy sources, preferably on-site followed by off-site, or from offsets

4. Improve verification and rigour
Over time, progress to include embodied carbon and other impact areas such as zero water and zero waste

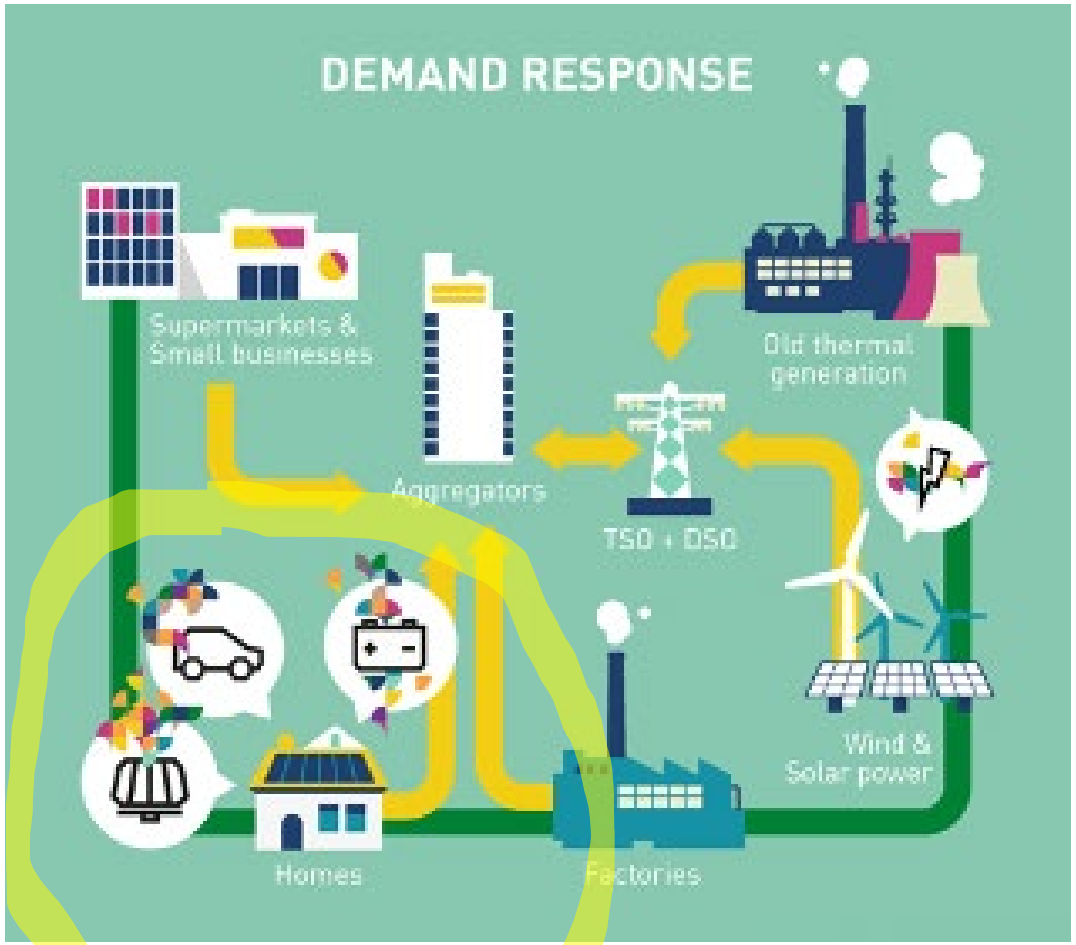
Version 1 | March 2018

HUBe

“Best-in-class” Net Zero Energy Technology Showcase

NetZero Energy Systems, Inc. is now showcasing many of the HUB-e platform technologies and features, with its residential/commercial/industrial solarPV production, battery energy storage, V2X EV charging, with multiple energy saving and demand response components, as part of a collaborative LADWP advanced technology showcase
(located at LADWP’s LaKretz Innovation Campus in downtown LA (March 2023).

*The HUBe technology showcase includes NZE channel partners, Ameresco Solar, Schneider Electric, Fortress Power, and others.



HUBe

Utilities around the country are employing new Demand Response (DR) strategies to meet and lead the transition to a carbon-free energy system. NZE is collaborating with the LADWP to showcase the HUBe DR platform, providing the most advanced components and software to enable a 100% net zero carbon home transformation by 2030. DR contributes to balancing grid energy supply with demand in periods of high renewable energy generation and facilitates the transfer of residential solar power directly to the power grid and/or stores the excess in Li-ion battery energy storage systems and/or electric vehicles (V2G).

The HUBe platform utilizes Eaton's energy management circuit breaker (EMCB) and Wall Box and Fermata Energy V2X and DC EV chargers to help ensure grid stability with reliable real-time data and is designed to help both utilities and customers through improved energy control.

Vehicle-to-X (V2X) Platform

HUB*e*'s V2X EV charger(s) and demand response platform use bidirectional EV chargers and smart breakers to provide the flexibility to accelerate renewable energy deployment – mitigating the infrastructure cost associated with mass adoption of Electric Vehicles (EVs). With managed charging, EV batteries can be controlled remotely by a utility, in cooperation with the homeowner, and timed to charge according to the needs of the grid, similar to demand response programs. The energy stored in an EV can be drawn from EV batteries (down to a manageable level – usually late at night) and sold to the grid in times of excess demand. Once the energy shortage has been mitigated the EV charging cycle is automatically restarted. In the near-future V2X will provide DR options that enables utilities and electric vehicle owners to create the next generation distributed energy resource Virtual Power Grid (VPG).

HUBe LKIC Showcase Channel Partners

AMERESCO Green • Clean • Sustainable

FORTRESS POWER

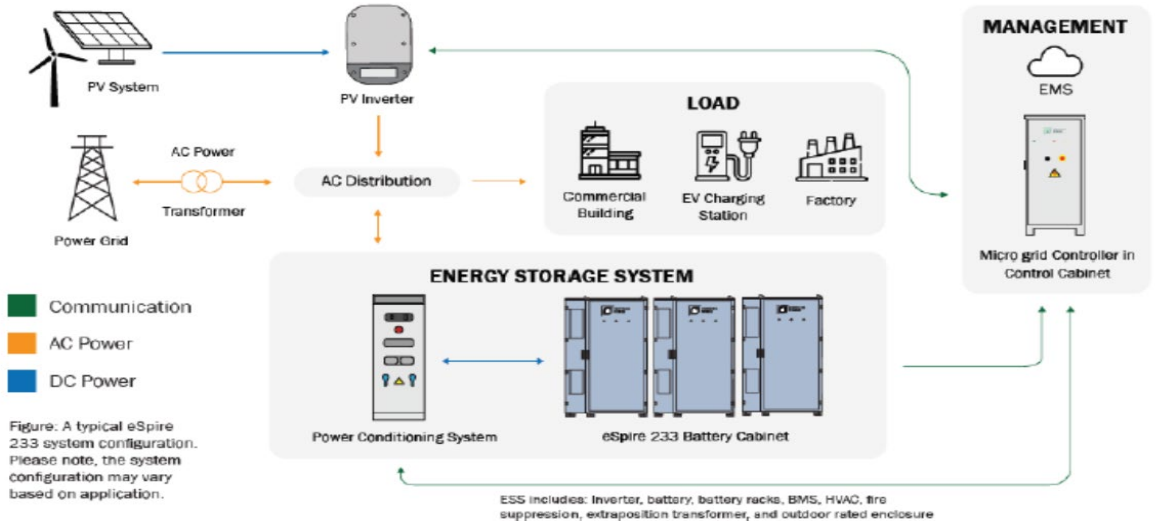
Schneider Electric

FERMATA ENERGY

wallbox

HUBe

HUBe, with its channel partners, designed and built to deliver homeowners, businesses and utilities an all-in-one “best-in-class” safe and cost-effective NextGen smart grid demand management total solution platform with scalable solarPV, battery storage, distributed energy resource management and V2X EV charging options.



NETZERO EnergySystems

"Best-in-class"
Residential-small commercial/industrial
Solar PV+battery storage+V2X EV charger microgrid VPP technologies

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