



# Pilot Flight Manual

# Net Zero Accelerator<sup>TM</sup>

Opportunities to partner with growth-stage companies solving for net zero energy, carbon, water, and waste.

**2022 Cohort Edition**



LA





## Guiding, Piloting & Promoting Solutions for a Net Positive Future



**CARBON**



**ENERGY**



**WATER**



**WASTE**





# NOT YOUR TYPICAL ACCELERATOR

## **We're speeding adoption of vital solutions in the built environment.**

With a focus on piloting projects in real world, trackable implementations, the Net Zero Accelerator™ aims to rapidly drive measurable adoption of net zero solutions, today.

**WE BRIDGE THE GAP** between net zero building policy and current technology in use for both commercial and affordable housing sectors.

**WE BUILD AWARENESS** of viable solutions and market-ready innovations through marketing, media, events and curated networking.

**WE GET TECH TO MARKET** through onsite pilots with committed green building leaders.

We achieve this by pairing our cohort members with expert advisors, promoting their solutions to high value prospects, and placing pilot projects to help these growing companies better prepare for scaled adoption.

All to make net zero carbon, energy, water, and waste a reality for LA and beyond.

**Join us and be a net positive part of our net zero future.**



# ACCELERATING A NET POSITIVE FUTURE

The NZA leverages the insights, expertise, and relationships of our marquee partners and community members to speed the development and commercialization of sustainable innovations.



Net Zero  
Tech



Market  
Entry



Building  
Decarbonization



Occupant  
Health



Sustainable  
Infrastructure



Clean  
Construction

This 9-month program, which brings thought leadership and broad awareness to high-potential pilot projects, is the only one of its kind focused on the built environment.

With our focus on solutions for net zero carbon, energy, water and waste, we also advance building decarbonization, occupant wellness, sustainable infrastructure, and clean construction.

- 15 Pilot- and Market-Ready Members
- 40+ Expert Partners & Advisors
- 20+ Committed Pilot Partners / Sites
- May to January Demo Day
- Launches with USGBC-LA's Signature Event [MyGBCE](#)
- Featured at The Net Zero Conference (Hosted by Verdical Group)
- 100K+ Relevant Media Impressions
- Company / Product Target Alignment
- Pilot Development & Formation (Matchmaking)
- Promotion at Events Including Custom Showcases

[\*\*NetZeroAccelerator.org\*\*](https://NetZeroAccelerator.org)





# PROGRAM & CURRICULUM

Green building experts counsel and coach our pilot-ready companies on strategy, fit and viability. Cohort members receive low-cost, focused acceleration to streamline and de-risk adoption with a curriculum that is customized to their needs and best leverages the expertise of 40+ Advisors.

## Fundamentals

Performing mini-audit and gap identification (structure, financials, legal, planning, etc.) to ensure the company is ready to move forward in our market.

## Pilot Readiness

Ensuring the company is ready, across multiple operational and logistical aspects, to pilot their technology with a potential high value customer.

## Project Finance

Assessing financial strategies and options to ensure economically viable and attractive projects and mitigate negative impact on growth-critical cash flow.

## Brand + Story

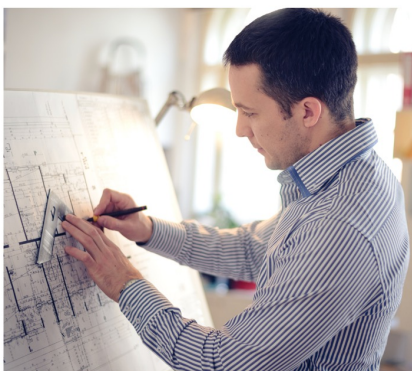
Helping the company know and communicate who they are, what they stand for, and how to deliver a compelling and actionable narrative that aligns with targets.

## Sales + Business Development

Guiding how to most effectively build and manage a pipeline, use best practices in business development, engage prospects, close the deal, and ultimately benefit stakeholders.

## Sustainability ROI

Creating a strategic framework for successful development and sustainable growth aligned with long term financial, environmental, and social impact goals.







## 2022 Cohort

NZA22

AMPD  
ENERGY

AQUIPOR

BAMCORE<sup>®</sup>

Carbon  
Upcycling  
Technologies

ElectricFish

enersion

FEEDBACK  
SOLUTIONS

GLASS  
DYNAMICS

hempitecture<sup>®</sup>

HYDROFLUX  
TECHNOLOGY

INOVUES  
WINDOW RETROFIT INNOVATIONS

LeapFrog Design

MeterLeader

MIRAVEL

moduly

Advanced Materials | Building Envelope | Building Systems

Data Analytics & Platforms | Energy Efficiency & Resources | HVAC & IAQ

Occupant Health | Sustainable Pavement | Water Conservation



## Pilot Proposal

### Ideal Pilot Project Characteristics

- Urban building construction site with significant number of tower cranes and hoists
- Site is not able to secure enough power to support all equipment so diesel generators are required either temporarily or for the whole project
- Sufficient space to house a 10ft container with 3 feet of space around it
- Accessibility for maintenance team
- Cell network available for mobile internet
- Ideal partner is a construction company or equipment provider with a strong focus on sustainability



### Example Site Setup



Figure 1. 'Block' diagram of the connection between the utility mains, Enertainers and the loads.



### Pilot Process

- Customized proposal including project cost and carbon savings depending on equipment that needs to be powered
- 1 day site set up with delivery organized by Ampd team – 2 hour training for on-site staff and assistance in connection to site equipment
- Set up of online platform for monitoring telematics including diesel and carbon savings
- Routine maintenance visits to ensure equipment is operating well
- Monthly report provided
- Option to extend the rental beyond the initial 6 month period
- Co-marketing with clear, transparent carbon and cost savings data



### Pricing

- US\$50,000 to US\$70,000 depending on specifications required
- 6-month term extendable on completion
- Inclusive of all maintenance, warranty, delivery, removal and installation

For more information on how the Enertainer could benefit your project, please contact Julian on +44 7395521418 or at [julian@ampd.energy](mailto:julian@ampd.energy)

**Ampd Energy** exists to electrify construction in pursuit of its vision of an emission-free future for construction.

Ampd Energy pioneered the use of energy storage systems with its core product—the Enertainer—which reduces the carbon footprint of and air pollution from powering construction by up to 85%, reduces noise levels by 30x, eliminates diesel fire and ground pollution hazards in construction, and is a fully automated, self managing system.

No diesel. No fire hazards. No emissions. No hassle.

We've deployed 130+ Enertainers in Hong Kong, Singapore, Australia, and UK with some of the largest and most innovative construction companies.

Ampd Energy is expanding internationally and is looking for partners for its US business, particularly in the Greater Los Angeles market.

[www.Ampd.energy](http://www.Ampd.energy)





# AQUIPOR TECHNOLOGIES

FOCUS: Net Zero Carbon and Water, Clean Construction

AQUIPOR

## THE TECH

An advanced permeable concrete technology that takes the place of traditional paved surfaces to manage stormwater in-place and recharge groundwater right in the urban environment.

## BENEFITS:

- Water Savings: In-place stormwater management, flood mitigation, and natural groundwater recharge right within urban infrastructure.
- Part of a fully engineered stormwater infiltration and management design.
- Filters debris onto the surface (ease of maintenance).
- Extremely low CO<sub>2</sub> profile (no portland cement) and carbon sequestration within our concrete.
- Ease of maintenance.
- Reduction of urban heat island effect.
- Testing, monitoring, and measurement of emissions, water flow / infiltration, and system's embodied carbon

AQUIPOR  
GREEN CONCRETE TECHNOLOGIES

## THE PILOT "SPEC"

Ideal Pilot Partner: A municipality or private developer in L.A. County

Sidewalk replacement or new construction: 1,000-1,500 lineal feet (¼ mile).

Light vehicular - Pedestrian friendly street: "Complete Street" design.

### ANTICIPATED RETURN ON INVESTMENT



**AquiPor Technologies** engineers, procures, and manages the construction of green infrastructure projects. Our flagship product is a new type of permeable concrete technology that can take the place of traditional pavement in certain areas to manage stormwater right where it falls and mitigate urban flooding.

The material features sub-micron porosity which makes it resistant to clogging. Our permeable concrete tech also utilizes a very low-carbon non-portland cement technology that is showing potential for net zero CO<sub>2</sub> concrete.

This solution not only manages stormwater naturally, but also utilizes an inherently low-carbon cement that requires a fraction of the energy and emits a fraction of the CO<sub>2</sub> than that of traditional concrete.

These are the kind of solutions that AquiPor is developing to not only address climate change and make our communities more resilient, but also bring better economics to our physical infrastructure systems.

[www.Aquipor.com](http://www.Aquipor.com)





## BAMCORE HIGH PERFORMANCE BEYOND ZERO CARBON FOOTPRINT



### WE MAKE IT EASY TO BUILD NET ZERO

BamCore's Prime Wall™ Bamboo Framing System is code compliant to 5 stories and CA Title 24 compliant in all 16 climate zones without rigid exterior foam.

### ADU PILOT

BamCore Prime Wall™ framing panels are offered at 50% below market value for one ADU unit. The ideal Client is an ADU Builder with a set portfolio.

### MULTI-FAMILY PILOT

BamCore supplies Prime Wall™ framing panels at a 25% below market value. The ideal Client is the Community Corporation of Santa Monica, Urban Planners, and Multi-Family Developers.

## BAMCORE vs 2 x 6

**50% Faster to Install**

**51% Stronger**

**50% - 60% Better Acoustic Dampening**

**50% - 70% Improved Thermal Performance  
Reduces the Size of Your Heat Pump**

**Proven Embodied Carbon Negative to Meet Your ESG Objectives Quickly**

**Reduces or Eliminates OSB and Sheet Rock**

**Contact: [tobe@bamcore.com](mailto:tobe@bamcore.com)**

OPPORTUNITY TO BUILD CARBON NEGATIVE

**BamCore's** Prime Wall™ is a negative embodied carbon framing system for commercial and residential low-rise construction. This means that the materials in the framing panel have captured and stored more atmospheric carbon than is released in the harvesting, manufacturing, and construction process. In addition, the Prime Wall™ is extremely thermally efficient, drastically reducing operating energy and costs. In short, the BamCore Prime Wall™ has a beyond-zero carbon footprint.

The climate crisis is not the only challenge the built environment faces today. A shortage of skilled labor is plaguing the system. With BamCore's next-generation disruptive technology and industrialized construction techniques, you can build in half the time with half the crew. And you needn't worry about quality. The Prime Wall™ is built to last many generations. It is so durable it can stop a small caliber bullet.

BamCore's secret ingredient to high-performance framing systems is proprietary knowledge of species and locations of the strongest timber bamboo for load-bearing construction and nearly a decade of research in fiber optimization. Not to mention a developed global supply chain.

**[www.BamCore.com](http://www.BamCore.com)**



# CARBON UPCYCLING TECHNOLOGIES

FOCUS: Net Zero Carbon and Waste, Sustainable Infrastructure



IMMEDIATE OPPORTUNITY

TECHNOLOGY

## Carbon-enabled circularity

Carbon Upcycling is a waste and carbon utilization company unlocking a new frontier of circular materials. We combine CO<sub>2</sub> with local industrial byproducts & natural materials to improve performance of cement & plastics, some of the most widely used materials on the planet. Learn more about our global solution

## Low Embodied Carbon Concrete

*Any new building built in LA starting 2023 must be built to achieve zero-carbon emissions. Our solutions are here to facilitate this.*

### Option 1: Testing and Evaluation at Lab Scale

Carbon Upcycling will provide sample material for testing & evaluation. Together we will determine a testing plan best suited based on California climate & current standards.

### Option 2: Concrete Placement (sidewalk, foundation, etc.)

Supply a larger quantity of material for use in concrete flatwork project of approximately <200 cubic yards. Our ideal partner is the City of LA or other municipalities, or a cement or ready-mix company. Cost for opportunities based on scale & simply covers costs.

PILOT OVERVIEW

Carbon Upcycling enables concrete to become stronger, more resilient & lower carbon

10% – 20%

### Reduction in cement

Concrete made with less cement lowers cost & results in a lower embodied carbon product

20% – 40%

### Improvement in strength

Even with less cement, our CO<sub>2</sub>-Enhanced SCMs improve the compressive strength of concrete

40% – 60%

### Improvement in durability

The more durable the concrete, the longer it lasts. We make infrastructure more resilient by protecting against the most common modes of failure (chlorides, sulphates)

20 kg

CO<sub>2</sub> Reduced per Meter of Concrete



### Reduction in embodied carbon emissions

We enable double-digit emissions reduction by reducing cement and using CO<sub>2</sub>-Enhanced SCMs

### Maintain concrete workability

Even with less cement, our concrete looks, works, & finishes like traditional concrete

Kristin Skelton – BD Associate [kristin@carbonupcycling.com](mailto:kristin@carbonupcycling.com)

**Carbon Upcycling Technologies** is a waste and carbon utilization company unlocking a new frontier of circular materials. We're tackling the biggest problems on the planet—like climate change and industrial waste. With our patented technology platform, we help the hard-to-decarbonize industry transform local industrial byproducts and natural materials into superior additives.

Our first massive market is cement and concrete, the source of eight percent of global CO<sub>2</sub> emissions and growing. Our technology sequesters industrial CO<sub>2</sub>, reduces the carbon footprint of cement, and improves concrete performance. We do this by opening up a new class of locally available, carbon-sequestering cement replacements.

With Carbon Upcycling, cement and concrete producers can now create a superior product using local industrial byproducts and natural materials and save the planet at the same time. Waste today, product tomorrow.

[www.CarbonUpcycling.com](http://www.CarbonUpcycling.com)





## ElectricFish Pilot for Multi-Tenant Building Owners

Providing world-class, always-on, and cost-effective DC Fast Charging and backup power for blackouts

### 350squared v2 - launching Q1 2023



#### Technology

- 350 kW DC Fast Charging (180 mi in 10 min)
- Bi-directional energy for EV and site resiliency (350 kWh flexible battery storage capacity)
- Compatible with single-phase 208/240V outlets
- Half of a standard parking spot

#### Benefits

**Simpler planning:** Minimizes interconnection requirements for ground-up construction plans and existing properties (years to weeks)

**Lower Cost of Ownership:** Save up to \$30K per year in demand charges vs traditional 350 kW

**Tenant appeal:** High-powered, on-the-go charging to complement your L2 portfolio

#### Proposed Pilot

- 1 unit deployed at parking lot of multi-unit property (commercial or residential) - \$100K for 4 mo. pilot
- ElectricFish covers planning, installation, operation, maintenance
- Permitting and installation target of 8 weeks
- Achieve 3X cost efficiencies in EV and building power consumption
- Deliver 3 hours of backup power during actual or simulated grid outages

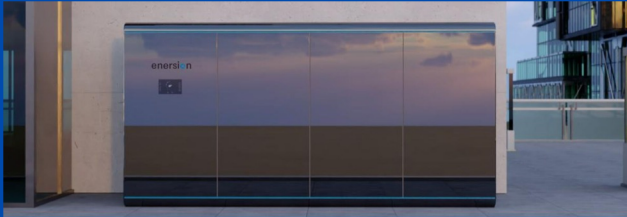
**ElectricFish** is accelerating energy equity for extreme-fast charging and backup power. We are a climate tech company building distributed energy storage powered by software. Our patented, turnkey energy storage solutions bring unprecedented convenience to the EV charging experience while also supporting energy resilience in local communities, all with 100% renewable energy.

We are experienced battery researchers, hardware engineers, energy scientists, creatives, and serial entrepreneurs with deep domain expertise and execution experience from leading organizations such as BMW, Oak Ridge National Lab, NASA, and Stanford. Our team has been recognized by a number of institutions, including *Forbes 30 Under 30*.

While our diverse team stems from different walks of life, we are uncompromisingly united in our mission to enabling a decarbonized, resilient, and equitable energy future all communities. Our humble yet mighty team is based in Fremont, CA.

[www.ElectricFish.co](http://www.ElectricFish.co)





## The Energy Cubed

70%

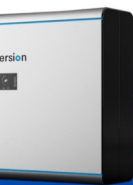
ENERGY COST SAVINGS

ELECTRICITY,  
COOLING  
& HEATING  
FROM ONE INTEGRATED SYSTEM

COOLING BASED ON  
NANO-POROUS MATERIALS



Heat



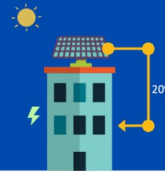
Cooling

CONVERTS HEAT TO COOLING

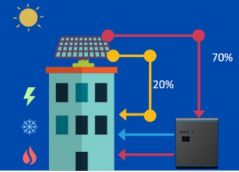
- Uses nano-porous materials
- Produces cooling without electricity
- Replaces Ozone depleting synthetic refrigerants with pure water
- Patent protected product (20+ patents)

## TECHNOLOGY

SOLAR PANELS



ENERSION'S SOLAR ENERGY CUBED



## BENEFITS

4X ENERGY/SQFT  
3X GHG SAVINGS  
50% Quicker PAYBACK

## PILOT PROJECT

### Ideal Pilot Partner

- Concrete buildings that can bear the load of solar panels
- Available roof space to accommodate solar panels
- Existing HVAC ductwork

### Timeline

- Production: 6 months
- Installation: 1 month
- Pilot Project: 2 months
- Payback: 2-5 years

System Size	System Size		Projected Cost
	Cooling	Electricity	
5 tons	5 kW	35 kW	\$50K
20 tons	20 kW	140 kW	\$200K

enersion

**Enersion** offers a Solar Tri-Generation unit that produces cooling, heating & electricity with more than 70% energy savings and zero GHG emissions. The core technology is a patented cooling system that uses nano-porous material to directly convert low-grade heat into cooling without electricity.

This is integrated with hybrid solar thermal-electrical panels. Unlike traditional photovoltaic panels, the thermal-electrical hybrid panels produce electricity, and capture the otherwise wasted thermal solar energy which our cooling system converts into cooling.

Enersion's Tri-Generation is a zero-emission grid asset that produces clean electricity on-site through solar panels and is able to utilize the waste heat for cooling in the summer and domestic heating in the winter, further reducing the facility's energy consumption and carbon footprint. By producing cooling, heating and electricity from a single source (Solar Energy) Enersion can increase efficiencies to 90%, and reduce the payback period by more than half, relative to alternative systems.

[www.Enersion.com](http://www.Enersion.com)





# FEEDBACK SOLUTIONS

FOCUS: Building Decarbonization, IAQ, Facility Data, Grid Management



## NZA Pilot Project – Commercial Office

Real Time Occupant-Based HVAC Optimization = GHG Reduction & \$ Savings



### Ideal Demo. Site - Commercial Office

- Building floor with dedicated air handling unit (AHU), compartmentalized unit or DOAS
- Supply & return fan with variable frequency drive (VFD)
- BACnet enabled building management system (BMS)

### Site Requirements

- Floor plan (for applicable floors) with defined entry/exit points and square footage
- Design capacity (no. of occupants)
- Total floor CFM
- Current VFD speed
- Current OA (outside air) percentage
- Current sequence of operation / access to trend data ideal

### Expected Outcomes (non-disruptive installation!)

- Significant reduction in electrical and thermal energy usage
- Impactful reduction in GHG emissions
- Compelling ROI: ≤ 3 yrs.
- Highly accurate space utilization data & analytics/dashboard
- Opportunity to integrate with IAQ sensor data via BACnet

### Cost

- Pilot Project cost for sensors and FSI edge device capped at \$2,500 per floor (elevator lobby + 2 stairwells per floor), software fees waived
- Cabling & installation cost to be confirmed before any commitment is made/ M&V fees covered by Feedback Solutions

**Feedback Solutions** is a ClimateTech / PropTech company in the building decarbonization/indoor air quality space with a de-risked technology that has successfully sold to top tier Universities, Commercial Landlords and Municipalities.

This “here and now” asset light solution is immediately deployable and has demonstrated a reduction in the HVAC related energy spends and related GHG emissions in buildings by up to 40%. The patented approach to the optimization of ventilation based on real time occupant counts is based on a proprietary methodology and intelligent algorithms. Feedback Solutions communicates actionable, zoned data via BACnet to the Building Management System or direct to DDC controllers and is available via cloud server or on-premises as required.

The heightened focus on indoor air quality (IAQ), particularly with commercial office owners, creates opportunities to partner with top IAQ monitoring platforms delivering to customers an integrated solution that makes IAQ and occupancy data actionable at the premises level – providing occupants and owners assurance on the IAQ front while proactively addressing ESG mandates.

[www.FeedbackSolutions.ca](http://www.FeedbackSolutions.ca)



## Smarter Homes Have Cooler Glass

NZA Pilot Opportunity delivering the residential window market's coolest and most energy efficient glass

### Dynamic Glass:

- Next generation dimmable glass that tints and untints upon application of an electric charge
- The same customer value proposition as residential solar, up to 20% energy savings, and is independent of utility networks
- Fundamentally new and advanced user experience

### Proposed Pilot:

- Front entryway dynamic glass installation for a residential home front entryway door, sidelight, and transom windows
- Targeting a disadvantaged community

### Indicative Cost:

- \$30k (\$15k after 50% investment tax credit)

### Dynamic Glass Benefits

The same customer value proposition as residential solar for:

- 1 **10x less cost**
- 2 **45x greater adoption precedent**
- 3 **Grid interactivity**
  - Flexes grid to conserve afternoon peak energy
  - Supports EV adoption



(1) Source: EIA data  
(2) Source: Graphic from PG&E



**Glass Dyneamics** is solving the economic hurdles impeding residential solar mass adoption: systems cost \$30k on average, which is 40% of average U.S. national income; which results in 20-30 year system paybacks vs. 8-year average U.S. home ownership periods; and customers are 100% exposed to subsidy or utility rate structure changes (i.e., net metering, taxes, filed charges, etc. changes).

Consequently, the residential solar market has achieved 1% cumulative market penetration outside of California and Hawaii and is forecasted by the SEIA to grow at 0% annually from 2022 through 2026. This altogether manifests itself in the stigma - 'solar for rich people' - that is the injustice that those who can afford solar pay less in monthly electricity bills while those that can't afford it are left with paying the fixed costs to maintain the grid.

Glass Dyneamics vision is to solve this problem by providing a dynamic glass product with the same customer value proposition (and more) as rooftop solar for a third of the cost with no utility rate structure risk exposure.

[www.Dyneamics.com](http://www.Dyneamics.com)






# HEMPITECTURE

FOCUS: Net Zero Waste, Building Decarbonization, Building Systems






hempitecture®

## Hempitecture | HempWool® Insulation

Revitalizing US Manufacturing with Biobased Materials



High-Performing Comfort | Carbon-Smart | Healthy & Safe

### Our Technology

Utilizing state-of-the-art nonwoven technology and **renewable energy** to power it, Hempitecture is manufacturing **nontoxic** and **low-carbon** thermal insulating materials with North American grown natural fibers.  
Flagship product: [HempWool® insulation](#) (click to learn more)

Hempitecture is working with key research partners\* (DOE's Oak Ridge National Lab and U of I) on product development and testing certification/code requirements.

### Pilot Opportunities

A multi-family home designed to carbon smart and net zero energy standards.

A high-rise commercial project with a goal to lower their carbon footprint of a high-density building

### Pricing

- Hempitecture will match conventional insulation price (26 pallet max).
- Government incentives (ex: inflation reduction act)
- Hempitecture will also provide on-site training for installation + digital marketing promotion.

### Benefits of HempWool® Insulation

**Healthy & Nontoxic:** safe for people and planet!  
**Easy to Install:** no specialty teams or tools needed  
**Testing, research, and measurement** of carbon impact, fire-rating, acoustics, and LCA w/ key partners.\*

**Sustainable:**

- Made from 90% **regenerative** plant fibers that **sequester carbon**.
- Embodied Carbon footprint reduction
- Qualifies for **LEED** Credits.

**High Performance:**

- **1:1 replacement** for conventional insulation.
- **High R-Value** per inch
- Increased **energy efficiency** lowering operating costs.
- Vapor-permeable and hygroscopic, naturally **mold and pest resistant**.

**Grown in North America | Made in North America:**

- Local - No worry about **supply chain** shortages!
- Manufacturing able to create products for **various types of building projects** and other industries that require cold-freight thermal packaging.

**Hempitecture**  
MFG Opening Feb. 2023

**Learn more :** [Hempitecture.com](#)  
**Purchase :** [Buy.hempitecture.com](#)

**Contact** Jonnie Pedersen  
[jonnie@hempitecture.com](mailto:jonnie@hempitecture.com)

**Hempitecture** uses plant fiber to manufacture the most innovative materials in the world. As a Public Benefit Corporation, our focus is on building materials that benefit both people and the planet. Our innovative materials are derived from carbon capturing, agricultural industrial hemp, a non-toxic renewable feedstock.

Our primary product is HempWool® insulation, a natural fiber batt insulation product. We intend to be continually innovative, and therefore, are always considering developing new products, new ideas, and new partnerships.

We believe our homes should contribute to our health, not take away from it. They should help us live happier lives, while also doing no harm to our planet.

Hempitecture is on a mission to create healthy, energy-efficient materials that positively impact both people and the planet by capturing carbon dioxide and replenishing farmland.

**[www.Hempitecture.com](http://www.Hempitecture.com)**



# HYDROFLUX TECHNOLOGY

FOCUS: Net Zero Water and Energy, Building Systems, HVAC



## THE HYDROFLUX DIFFERENCE



From the moment of installation, every HydroFlux application is backed by **\$2 million insurance coverage** against **Legionnaire's**, viruses, and mold.



HydroFlux recaptures energy that would otherwise be lost due to scale — and guides your building towards LEED and Well status, aiding in meeting **Green Building and Net-Zero Building standards**.



HydroFlux can usually be installed while cooling towers are fully operational. There's no need for regular shutdown or aggressive cleaning regimens. *And every HydroFlux bracelet is entirely maintenance-free.*



HydroFlux's Net-Zero technology is **supported by ASHRAE data** (Project RP-1155), as it has no defined lifespan, requires no external power, and needs no maintenance or service.



HydroFlux has been officially selected into **US Green Building Council Los Angeles' 2022 Net Zero Accelerator Cohort**.



**HydroFlux Technology** uses lab-tested, field-tested environmentally safe magnetic technology that installs in less than a day — without requiring disruption of your currently operating system.

Supported by data from ASHRAE and the Federal Department of Energy (DOE) HydroFlux provides powerful microbe growth control and an environmentally sound solution that doesn't heavily rely on hazardous chemicals or on routine labor. In fact, all it requires is an attractive bracelet.

By fitting snugly around nearly any pipe and exerting 1 Tesla of magnetic force on water flow, our eco-friendly attachment rapidly crystallizes calcium carbonate ( $\text{CaCO}_3$ ) into its aragonite form, preventing scale development and dramatically reducing water waste.

Simultaneously, this same bracelet battles bacteria and breaks down scale that may already have formed — allowing unwanted elements to be swept away without substantial chemical treatment. And it's all backed by a \$2 million insurance coverage for Legionnaire's disease, viruses, and mold that you'll find nowhere else.

[www.HydroFlux.com](http://www.HydroFlux.com)







## REVITALIZING WINDOWS FOR BETTER BUILDINGS

High-ROI Retrofits. Without Replacement. Without Disruption.

www.inovues.com  
info@inovues.com  
+1 (833) INOVUES

### PATENTED TECHNOLOGY

**OVERVIEW:** INOVUES provides the only technology that enables existing building facades to be retrofitted with the latest energy-saving and smart glass innovations without removal, replacement, or disruption. Our solutions provide the same benefits of full window replacement at 50-90% lower cost, offering up to 10x faster payback period and higher ROI.

**USE CASE:** INOVUES' non-invasive insulating glass retrofits (IGRs) transform single and low-performing double-pane windows into high-performing multi-pane systems, improving their thermal performance by up to 10x, which reduces building energy use by up to 40%.

**INNOVATION:** Once installed, externally (or internally), IGRs create a hermetically-sealed desiccated thermal cavity between the existing and newly-added glass, like factory-made insulating glass units (IGUs), unlike any other window retrofit.

### SAMPLE RETROFIT

- Cost: \$5,000 - \$50,000+
- Scope: 1 room, 1 suite, or 1 floor
- Ongoing Costs/Maintenance: None
- Ideal building type: Commercial - office
- Duration: 3 months - 1 year (removable or permanent)
- Installation: Turnkey by INOVUES, 30-60 min/unit, no drilling/disruption
- Custom made in the US, 10-year limited warranty, meets/exceeds ASTM/AAMA standards

**Note:** A cost-benefit analysis using building energy modeling plus before/after thermal imaging and heat transfer measurement will be provided by INOVUES at no cost (worth >\$10k).

BEFORE



AFTER



INOVUES' high-ROI low-carbon window retrofits significantly increase:



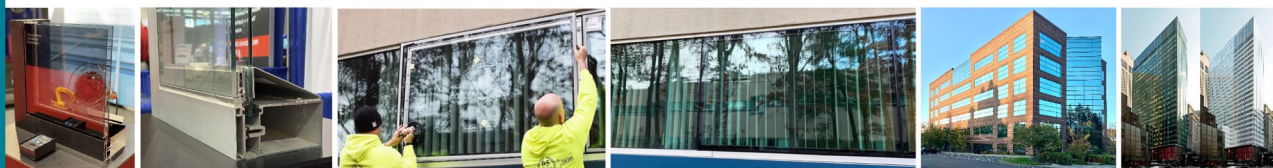
Energy Efficiency & Carbon Reduction



Occupant Thermal & Acoustic Comfort



Property Value, NOI & Sustainability



**INOVUES** developed a non-intrusive retrofit solution that offers the same benefits of full window replacement at a fraction of the cost and without disruption, providing up to a 10x faster payback period.

INOVUES' non-invasive insulating glass retrofits (IGRs) transform inefficient single/double-pane windows and glass curtain walls into high-performing multi-pane systems, enabling them to incorporate the latest energy-saving and smart glass innovations without replacement.

INOVUES' IGRs increase window performance by up to 10x and reduce energy consumption and peak heating and cooling loads by up to 40%. Once installed, externally (or internally), INOVUES' IGRs create a hermetically-sealed, desiccated thermal cavity between the original and newly-added glass, like factory-made insulating glass units (IGUs), unlike any other window retrofit.

[www.inovues.com](http://www.inovues.com)



## Greywater reuse system

Looks like a beautiful planter, recycles greywater for irrigation and toilet-flushing.

**Adds real comfort and value.**

**Reduces water bill by up to 40%**

### Benefits

- Save \$30 – \$50/month on water bill
- Comply with water restrictions
- Keep your garden and plants
- Up to 50 gallons of reuse water each day per planter
- Planter dimensions: 2 feet x 4 feet



**Contact Adam DeHeer**  
adam.deheer@leapfrog.design

**Learn more at**  
[www.leapfrog.design](http://www.leapfrog.design)



### Pilot Opportunities

For homeowners, multifamily housing developments, co-housing communities

**Pilot Costs** for treatment hardware and installation\* starting at \$5000.

\*Does not include building plumbing retrofit costs

**2022 Trailblazer Awardees**

**LeapFrog Design** addresses accelerating water scarcity with residential onsite water reuse systems that simultaneously help builders meet new legislative regulations, increase water efficiency, and increase home value and homeowner comfort.

Water scarcity is on the rise, with reservoirs drying up in the US and around the world. Regulations are pushing homebuilders toward more water-efficient homebuilding, but unfortunately existing solutions — such as reduced landscaping and low-flow shower heads — reduce homeowner satisfaction, making water-efficient homes less appealing for homebuyers.

LeapFrog designs, develops, and commercializes cost-effective, superior-performance residential greywater, rainwater, and wastewater recycling systems for homebuilders and building owners. LeapFrog is pioneering decentralized green infrastructure, specializing in modular and scalable ecological treatment solutions that use technology inspired by nature to provide natural water abundance for high performance homes.

[www.LeapFrog.Design](http://www.LeapFrog.Design)

**2022**  
Trailblazer Awardees



# METERLEADER

FOCUS: Net Zero Energy and Carbon, Energy Efficiency



## Let's Save Energy Together ⚡

MeterLeader is an online platform that gamifies saving energy at home by using real-time utility data and behavioral science. We help organizations engage with their employees tenants, and/or residents to reduce carbon emissions at home, and we enable those organizations to accurately report those reductions for ESG purposes. We're like a Fitbit Corporate Wellness Program, but instead of steps we measure kWh, therm, and CO2 reductions. MeterLeader is integrated with 12 electric and gas utilities in 10 states.

### Pilot Opportunity

Adoption of energy efficient electric equipment and behaviors in homes will be key to achieving Net Zero carbon emissions by 2050. MeterLeader is looking for companies, building owners, or cities to be pilot partners, in order to run Energy Challenges for their employees/residents to participate in. The goal of the pilot will be to achieve 5% average energy savings and user engagement. Discounted pilot price: \$2/user/month.

### Benefits

- Measure & reduce emissions from employees/residents
- Help employees/residents save money on utility bills
- Increase employee/resident satisfaction & retention
- Turnkey tool - low cost, low effort, & no expertise needed

### Timeline

- Month 1 - Build Challenge Page
- Month 2 - Launch Challenge Page
- Month 3 - 5 - Challenge is running
- Month 6 - Challenge has ended. Prizes, data extract, & case study are delivered.

### Learn More



Contact Us:  
nzandt@meterleader.com



**MeterLeader** is an online platform that gamifies saving energy at home by leveraging real-time utility data and behavior science principles. We're like a Fitbit Challenge, but instead of steps we measure kWh, therm, and carbon emission reductions. Our platform helps companies engage with their employees to reduce carbon emissions at home.

1. Sync Data: Sync your electricity and natural gas meter data automatically from your online utility account.
2. Join Challenge: Engage in fun social experiences to see who is the biggest at-home energy saver.
3. Save Energy: Energy tips help achieve measurable savings you can actually see via the real-time usage graph.
4. Win Prizes: Households that save the most, win the most. Challenge winners qualify for cool prizes.

[www.MeterLeader.com](http://www.MeterLeader.com)







MIRAVEL | PILOT OPPORTUNITY

## Don't Miss the Wall Garden



### GROW RENTS BY \$55 PER UNIT

Install an automated community garden in under an hour, then sell our product for \$55 / month to individual tenants

### 20+ UNIT APARTMENTS IN CALIFORNIA

Exclusively partnering with buildings around LA, SF, and San Diego with a lobby or common area

### \$1,590 UP FRONT OR \$100 PER MONTH

Flexible purchase options to get the 3 month pilot started, then work with us hand in hand to create value

### OVER 20% IRR AND 10X RETURN

Very little downside with unique cash flow and property value benefits depending on the investment type

Please contact Riley Kuffner, CEO, for more details | (415) 259-7525 | [riley@miravel.com](mailto:riley@miravel.com)

**Miravel** targets the problem of “fresh” produce, which on average in the U.S. is grown over 1,000 miles away using lots of land, water, and chemicals.

The large-scale agriculture system exists all over the world and is one of the leading industries contributing to climate change. But it's not just hurting our environment, it's also hurting people. Pesticides are a major health risk and while food is sitting on a truck or on a shelf, it's losing nutritional value, not to mention its taste and aroma.

There's truly nothing better than growing food locally. While people and businesses are becoming increasingly focused on health and sustainability, and trying to incorporate nature into their everyday environments, they keep running into the same problems—it takes up too much space, is too messy, and takes too much time.

Thus, Miravel developed the Wall Garden to make it easy to grow your own food and connect with the beautiful life around you. Their ultimate purpose is to help people and businesses be more healthy, happy, and sustainable.

**[www.Miravel.com](http://www.Miravel.com)**



# MODULY

FOCUS: Net Zero Carbon and Energy, Building Systems



Moduly is a smart energy solution behind the meter with an integration of a battery storage, smart home control, AI learning process that helps residential and commercial users to reduce their energy consumption, peak demand, carbon footprint and an energy backup for power outages.

#### MODULY ACCELERATES THE ENERGY TRANSITION BY

- Simplifying the access to affordable energy
- Fighting against climate change
- Having better energy awareness & control



#### THE GOAL

Install the Moduly solution in residence or small business to run the project for an initial 7-month term to demonstrate and validate technology solutions in a real-world environment. Resulting in:

- Energy usage information collection.
- Peak of consumption reduction during the high-rate time.
- Improvement of energy security resiliency
- Monitor and regulation of smart devices



Homekit

VISIT US AT



For inquiries [hello@moduly.io](mailto:hello@moduly.io)

[moduly.io](https://moduly.io)



#### THE ESTIMATED BUDGET

Moduly is looking for a partner to build a case study with around 10 or more Homekit units for residential and/or small commercial properties. A variety of storage unit capacities are available at discounted prices:

- \$5,100 for a 5kWh
- \$7,600 for a 7.5kWh
- \$12,600 for a 12.5kWh
- \$6/month per user for Web dashboard

#### THE BENEFITS

- Increase Grid stability & resiliency
- Increase profitability
- Electricity bill reduction
- Carbon footprint reduction
- T&D Deferral
- Custom interface access

#### THE TIMELINE

7-month term pilot timeline with extension available:

- Build and deliver energy solution (3 months)
- Training and continuing support (1 month)
- Collect, learn, and tune AI algorithms (3 months)
- Iterative test and adjust of algorithms (until end)
- Case study evaluation (end)

**Moduly** is the first all-in-one solution that can act as a nanogrid solution to bring resiliency, cost-savings, and clean energy to the electricity user and at the same time become a virtual power plant for a utility, where it can manage peak load, reduce GHG emissions, and increase profitability.

Protection from power outages: Moduly accumulates and stores energy to act as a generator in case of power loss.

Environmentally responsible and sustainable: Moduly reduces the use of electricity from fossil resources, favoring that from renewable sources.

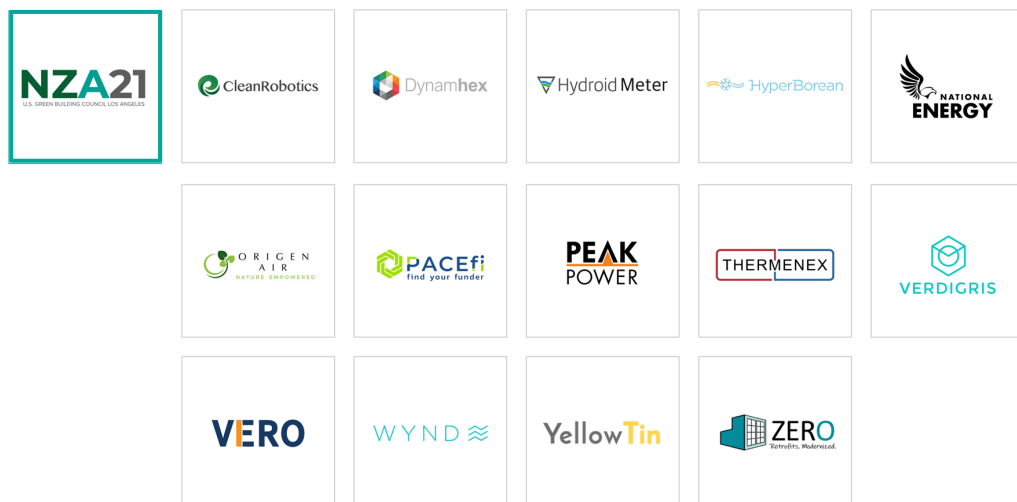
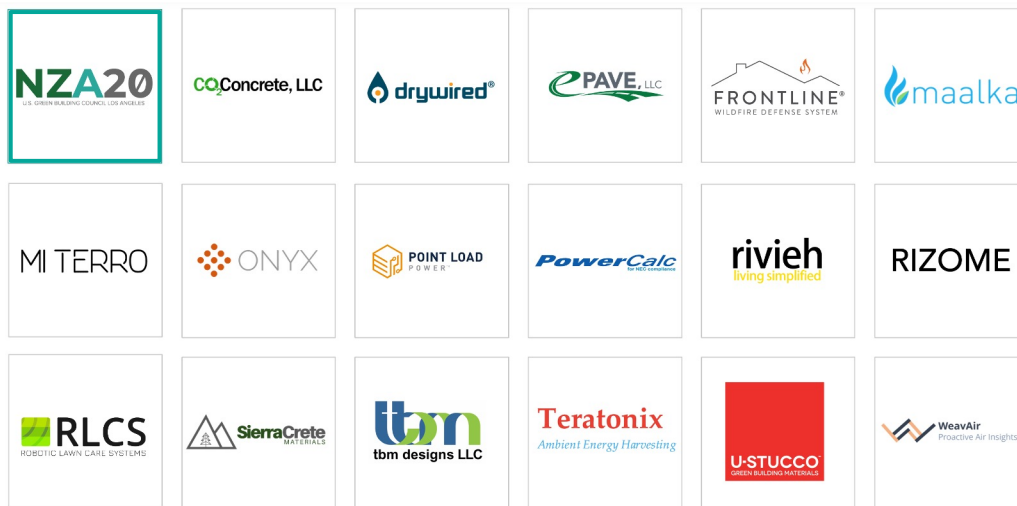
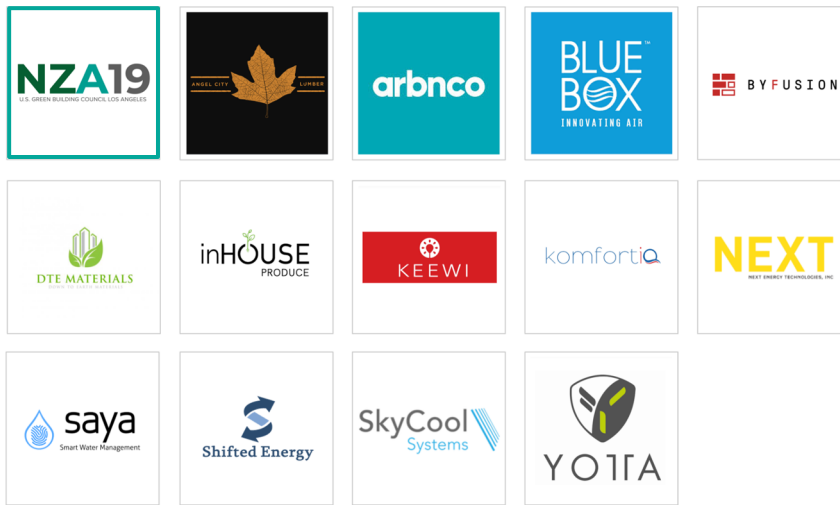
Cost Savings: Moduly stores energy when the electricity rate is low and reuses it to meet your needs during high rate hours.

Designed for all types of environments: house, apartment, cabin, or small business.

[www.Moduly.io](https://www.Moduly.io)



# NZA ALUMNI COMPANIES





# SoCal CleanTech Express Companies

Together with the Canadian Consulate General of Canada in Los Angeles, we run a six-month program that's like our annual NZA program but with a focus on helping Canadian companies enter and expand in the LA market.

We're pleased to note that three of the seven companies in our first two SoCal CleanTech Express (SCCE) cohorts have continued with us in NZA cohorts.

*Oh, Canada ...* we're so grateful and honored to work with you and welcome your remarkably innovative (and, yes, friendly!) entrepreneurs to LA.



[Canada.ca](http://Canada.ca)

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## Cohort 1 2020-21



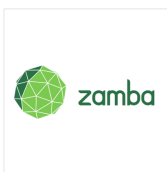
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## Cohort 2 2021-22

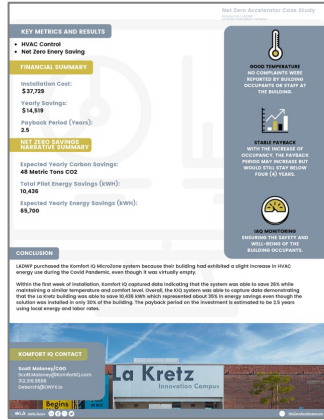


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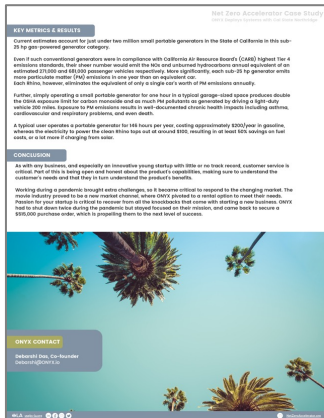
## Cohort 3 2022-23



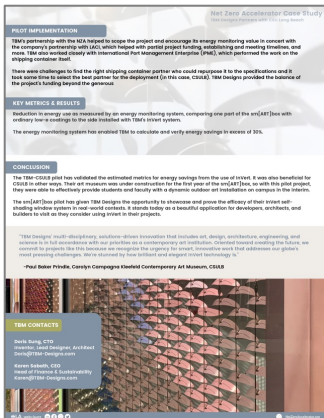
The NZA is the only program of its kind focused on developing and guiding pilot projects in the built environment. Below are some highlights of just a few pilot project success stories from NZA alumni available on our website.



Komfort IQ was engaged by the Los Angeles Department of Water and Power (LADWP) to lower the HVAC energy use load and improve the comfort, health, and well-being of their occupants at the La Kretz Innovation Campus, where USGBC-LA and our colleagues at LACI have offices.



ONYX's team deployed four of their Rhino mobile clean power systems to California State University Northridge (CSUN) to be used to power equipment for outdoor events per CSUN requirements, which include safe, clean energy with little to no noise.



TBM worked with the leadership team at California State University Long Beach (CSULB) to uniquely install the InVert™ self-shading window system to greatly reduce energy demand and associated costs as well create an iconic structure on the CSULB campus.

# THANK YOU FLIGHT MANUAL SPONSORS



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[www.BuildMomentum.io](http://www.BuildMomentum.io)



**SoCalGas**

A  Sempra Energy utility

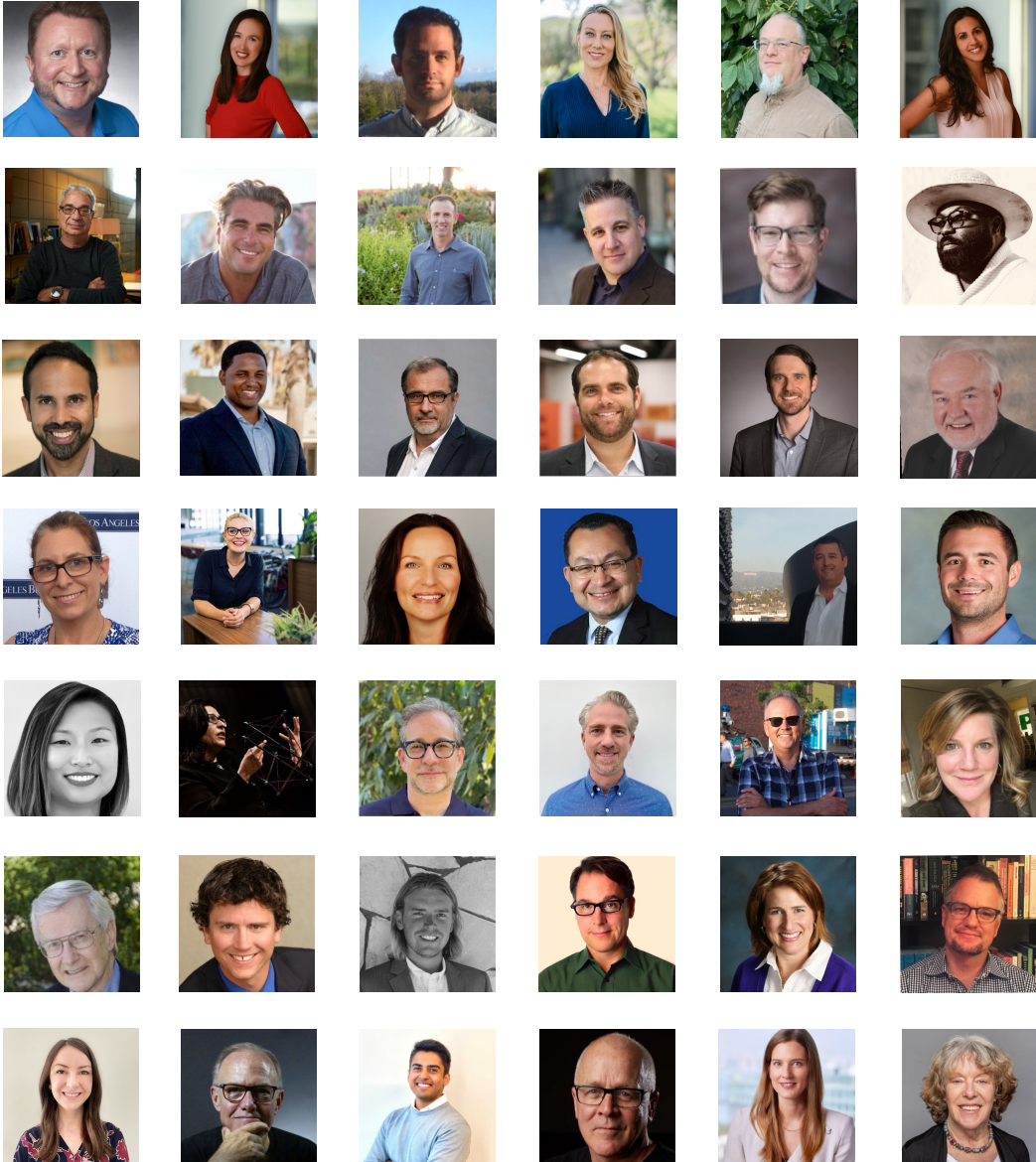
[www.SoCalGas.com](http://www.SoCalGas.com)





# THANK YOU ADVISORS AND SPEAKERS

USGBC-LA is about people. And this could not be more evident in the support the NZA and its member companies receive from our trusted advisors. We absolutely could not do this work without all the thought leaders in our community who freely give their time, guidance, connections, and more.



We're actively looking for advisors as well as pilot partners for our 2023 program. This includes roles as a technology provider, potential host site, or project advisor so you can share and learn through the process: [NetZeroAccelerator.org/advisors](https://NetZeroAccelerator.org/advisors)



# THANK YOU COMMUNITY PARTNERS

By sponsoring, partnering, and hosting events for and with the Net Zero Accelerator at USGBC-LA you have contributed to the development and commercialization of sustainable innovations for the building industry in Southern California and beyond.

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**Hathaway  
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**FIFTH | WALL**



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# Become a net positive part of our net zero future today.

The Net Zero Accelerator™ is a Corporate Sustainability & Innovation program of USGBC-LA,  
a Registered 501(c)3 Nonprofit Organization



**NZAccelerator**

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