



Independent Advice, Confident Decisions
ecodecarb.com | info@ecodecarb.com | (786) 443-2313

WHO WE ARE

Eco Decarb Forward empowers stakeholders across the energy value chain to make informed, strategic decisions. Through expertise in project development, low-carbon infrastructure, and sustainability strategies, we help partners identify opportunities, mitigate risks, and accelerate the industrial and urban transition to a decarbonized economy — with practical pathways that align environmental goals with economic growth.

OUR SERVICES

Data Center Development Advisory

- Data center feasibility assessment
- VPPA, RECs and renewable power structuring
- Commercial structuring and financial modeling

Power Infrastructure & Interconnection

- Nodal/LMP pricing, congestion analysis, interconnection strategy
- Behind-the-meter generation and storage architecture
- Power-shell development and offtake structuring

Code Compliance & Building Decarbonization

- Verification of applicable standards & design suitability
- BERDO, BEUDO and local emissions ordinance compliance
- Electrification and load management pathway analysis

Decarbonization & Techno-Economic Advisory

- Energy, heat & power feasibility — heat pumps, geothermal (res./comm./ind.)
- Techno-economic modeling, incentive stacking, bankability
- Lifecycle carbon & Scope 2/3 accounting

Fire & Explosion Risk Analysis

- BESS thermal runaway and deflagration analysis
- Enclosure response, venting and separation-distance modeling
- Detection, suppression and emergency response review

Market Assessment & Intelligence

- Market sizing, demand forecasting & competitive landscape
- Policy, incentive & regulatory intelligence (federal, state, utility)
- Technology & cost trend benchmarking

SELECTED PROJECTS

- **Capturing Hyperscale Demand — Data Center Market Strategy:** Supported a renewable energy developer in capturing hyperscale data center demand — identifying regional demand drivers, benchmarking sites, and defining a differentiated position around renewable integration, grid resilience and scalability to monetize assets and attract strategic partners.
- **Data Center Power Infrastructure & Interconnection Strategy:** Led technical and commercial strategy for data-center power supply, weighing behind-the-meter generation and storage against grid interconnection — analyzing time-to-power, congestion, nodal/LMP pricing and grid-support revenue to define the architecture maximizing asset value and deployment speed.
- **Fire & Explosion Risk Assessment — Data Center BESS:** Conducted thermal runaway and deflagration hazard analysis, enclosure response characterization and separation-distance requirements for a lithium-ion BESS in a modular data center, with fire-code review and mitigation to protect personnel, equipment and continuous operations.
- **Heat Pump Electrification & Building Readiness:** Assessed heat pump conversion for an occupied building facing BERDO — evaluating electrical service capacity against projected load and modeling lifecycle cost against incumbent fuel with federal, state and utility incentives stacked to a net installed cost, yielding a cost-effective 10-year decarbonization roadmap.
- **Driving Hydrogen Mobility — Business Strategy Roadmap:** Partnered with a heavy-duty transport operator to design a hydrogen mobility roadmap — integrating emission reduction, cost modeling and future technology scenarios, and aligning fleet transition with emerging hydrogen production and offtake to position the client as a first mover.
- **Distributed Energy Network — System Design & Decarbonization Strategy:** Delivered pre-FEED and system-wide design for a distributed EV and hydrogen station network co-located with CNG sites, integrating tri-gen, electrolyzer, SMR, fuel cell and battery storage subsystems, and defining architecture, sizing and integration criteria across generation, storage and balance-of-plant.

ABOUT THE FOUNDER

Shadi Darvish, Ph.D. — Multidisciplinary consultant with over a decade of experience leading clean energy and decarbonization projects across industrial, commercial and urban settings. Specialized in technology selection, techno-economic and life-cycle assessment, government incentive structures, regulatory and permitting, and power market regulations — with prior work spanning industry, government, utilities and commercial sectors, including Shell and DNV.