

# COMMUNITY 4 RESILIENCE FUND

## Investment Thesis

Community 4 Resilience (C4R) Fund is dedicated to enhancing the resilience of vulnerable communities against surging power outages due to climate change and the challenges of the aging transmission infrastructure. The Fund's financing instrument will enable residential households to implement a community-based microgrid project as a cleaner, reliable, and affordable addition to the existing power grid.

## The Challenges & Opportunities

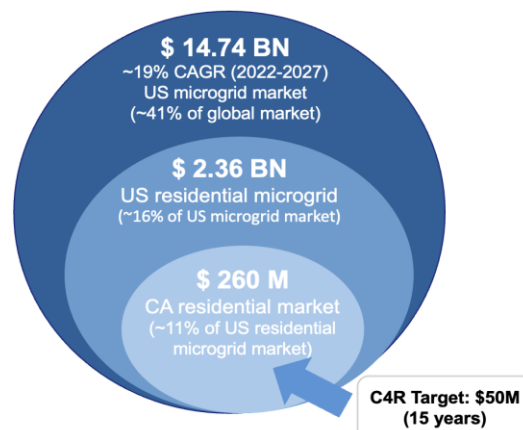
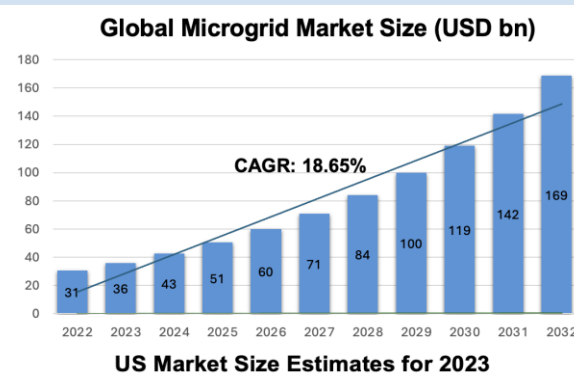
- Power shortage:** In near future, large-scale energy generation and delivery systems is not practical due to various constraints across the nation. In California, Public Safety Power Shutoffs (planned outages) will be initiated during extreme weather events. Meantime, unplanned outages are on the rise due to increasingly power demand and aging power grid. These impose significant risks on water access, health and social services, communication, and transportation networks.
- Costly installation:** The upfront cost of microgrid projects can be very costly. It ranges from tens of thousands and of dollars for smaller, more basic systems to millions of dollars for larger, more complex installation. Financing microgrid is one of key challenges to scale up microgrid for widespread deployment.
- Opportunities:** Microgrid investment are considered high-risk due to the lack of long-term track records, challenges in evaluating community energy demand and growing it over time and the unique characteristics of each community and project. Equipped with domain expertise, C4R helps build up self-sustainable microgrids with mixed DER, deploying more zero-emission energy sources access, improving grid resilience, saving energy costs and enhancing health and quality of life.

## Our Innovative Solution

- The innovative aspects of the C4R financial instrument lie in its multifaceted approach that combines financial viability with social and environmental impacts, creating a resilient framework for decentralized microgrid infrastructure in the face of growing challenges. **C4R Fund presents a competitive advantage in providing one-stop microgrid services to the single-family household community.** This is enhanced by strategic partnerships with Carbon Marketplace that generate additional revenue from the sale of Renewable Energy Certifications and Carbon Credits. Moreover, C4R partnerships with contractor developers for project development and management and collaborations with local governments for grants and regulatory support significantly reduce financial risks for investors and developers. These collaborations ensure projects are aligned with local and regional policies and further enhance their viability and impact.
- Our **two-phased investment approach** begins with targeting high-risk investors for 10% initial returns, attracting institutional banks, family offices, and philanthropic entities. The subsequent phase courts lower-risk investors like pension funds, broadening our investor base. This strategy not only promises financial gains but also underscores C4R's commitment to sustainable, impactful community microgrid solutions.

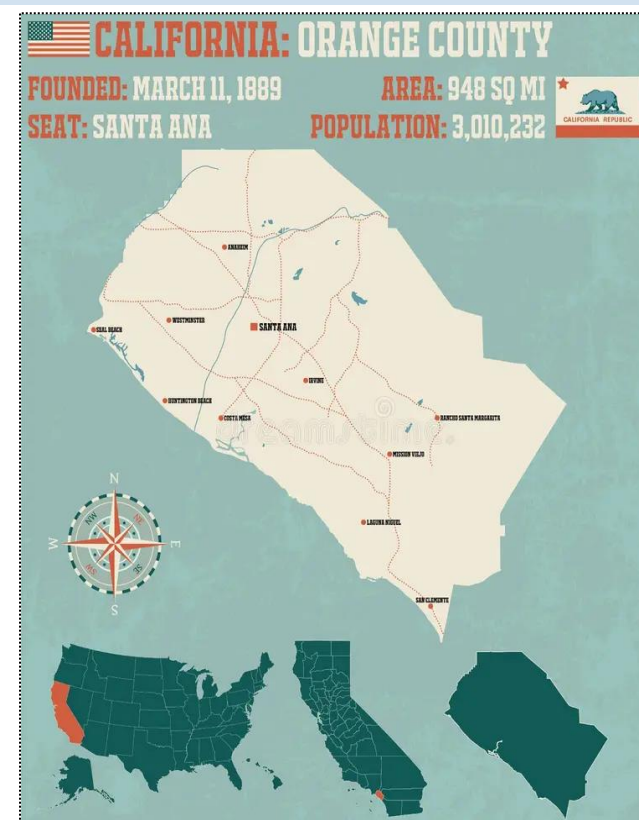
## Market Size & Target Geography

- The US microgrid market is developing rapidly and is projected to grow at a **19% CAGR** from 2022 to 2027 (in contrast, the utility market is expected to grow at a 2% CAGR).
- The market reached 10 gigawatts (GW) in 2022**, with 7 GW in operation and the rest in planning or construction stages.
- California**, the most populous state with 38 million population, is a **leader in microgrid adoption** due to its ambitious renewable energy goals and focus on energy resilience.
- Microgrids can enhance the resilience of vulnerable communities in CA, satisfying energy needs during and beyond times of crisis.

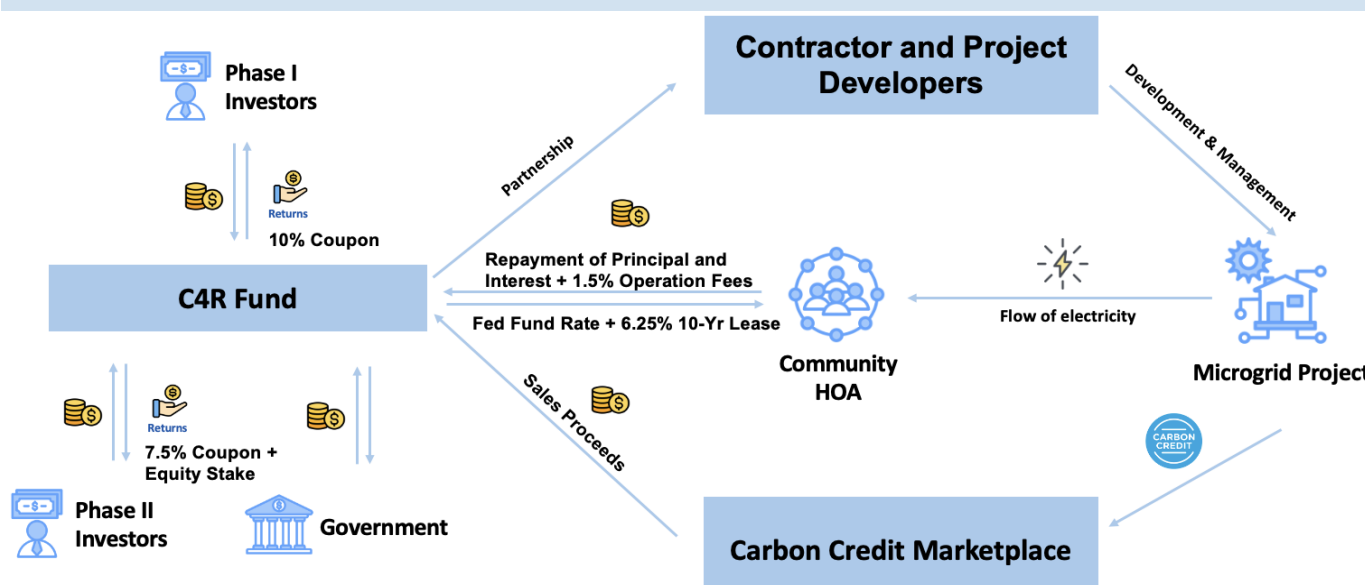


**Orange County** in CA is identified as the demonstration location for characteristics as such:

- Wealthy County with Dense Population:** Third largest populous county and Tenth per capita income in California
- Location:** Golden State with abundant year around sunshine
- High Energy Rate:** Lower average monthly electricity with 40% higher electricity cost than the national average
- Public-Private Initiatives:** Exclusive incentives and rebates for renewables with a strong potential for expansion



## Fund Flow/How it works?



### Local Community:

- C4R Fund provides financing to the local community, which benefits from grid resiliency, energy savings from the microgrid projects, and Investment Tax Credits. The repayment of the lease, along with the interest payments, is one revenue stream for the C4R Fund.
- The community HOA collects microgrid investment payments from entities within the community and pays a 1.5% transaction fee for the microgrid operation to the contractors and project developers.

**Government:** C4R Fund invests in sovereign bonds, such as Green Bonds, to hedge against interest rate increases. C4R receives the sovereign bond coupon from the investment, which is another revenue stream for C4R Fund.

**Carbon Marketplace:** Microgrid projects generate carbon credits and renewable energy credits. The eligible carbon credits and RECs are traded in carbon offset marketplace to generate another revenue stream for C4R Fund.

## Operating Model and Revenue Structure

### 1 Initial Capital Investment in C4R Fund from External Investors:

- Phase I Investors provide initial capital of \$30M to C4R Fund. The potential investors are asset management in real estate and family offices, large corporations (e.g., Meta, Google) that invest in carbon credits, impact investors, and philanthropic foundations.
- Phase II Investors join at a later stage of the fund's lifecycle, raising an additional \$20M. Potential investors are pension funds and family offices.
- C4R Fund will charge a 2% management fee and a 15% performance bonus (once we hit the hurdle rate of 15%).

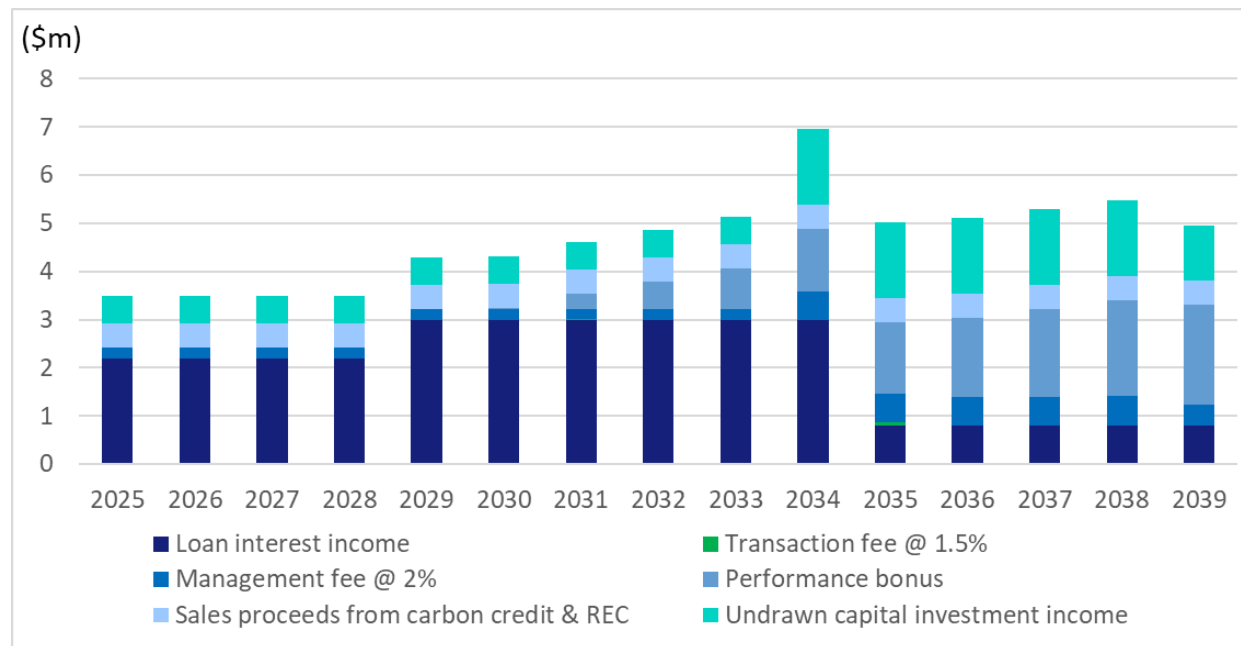
### 2 Returns in Two Phases:

- Phase I Investors receive higher returns with a fixed annual return rate of 10%. Investors also need to commit to a fixed term and have the option to exit after five years or a convertible option to Phase II.
- Phase II Investors join at a later stage of the fund's lifecycle, with a lower fixed annual return rate at 7.5% plus the equity-15% shares of the profits, depending on the fund's performance.

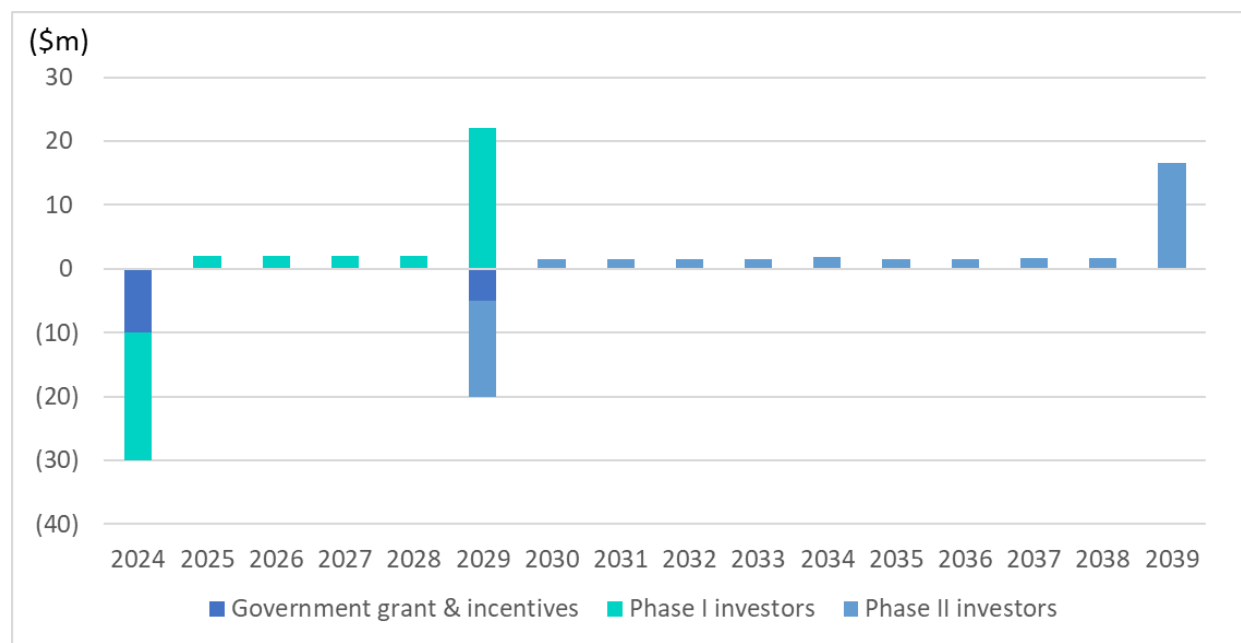
## Fund Details

<b>Fund Type</b>	Hybrid Private Equity Fund
<b>Fund Size</b>	\$50 million in total <ul style="list-style-type: none"> <li>Phase I: \$30 million</li> <li>Phase II: \$20 million</li> </ul>
<b>Fund Life</b>	15 years
<b>Asset Class</b>	Phase I: Convertible bond Phase II: Fixed income bond + equity stake
<b>Asset Revenue</b>	<ul style="list-style-type: none"> <li>Interest income from fed fund rate + 6.25% 10-Yr lease to the community</li> <li>1.5% out of the operation payment paid to the developers from the community</li> <li>Sales proceeds from carbon credits and RECs</li> </ul>
<b>Target IRR</b>	<ul style="list-style-type: none"> <li>Guaranteed 10% annual return to Phase I investors for the first 5 years with an option to convert to Phase II investors at Year 5;</li> <li>Guaranteed 7.5% annual return to Phase II investors plus a 15% share of the profit for the next 10 years (estimated blended return at 9.7% - 10.8%).</li> </ul>
<b>Fee Structure</b>	<ul style="list-style-type: none"> <li>2% management fee</li> <li>15% performance bonus (once hit the hurdle rate 15%)</li> </ul>
<b>Investment Criteria</b>	<ul style="list-style-type: none"> <li>REC and carbon credit generated through Microgrid are certified and can be traded in the carbon market</li> <li>Projects that meet the strategic investors' investment philosophy</li> <li>Projects that have a long-life span &gt; 30 years</li> </ul>
<b>Location</b>	Initially launch in Orange County, California, and then expand into the whole US
<b>Investor Pool</b>	Real estate asset management firms, family offices, large corporations (e.g., Meta, Google) who invest in carbon credits, impact investors, philanthropic foundations and pension funds

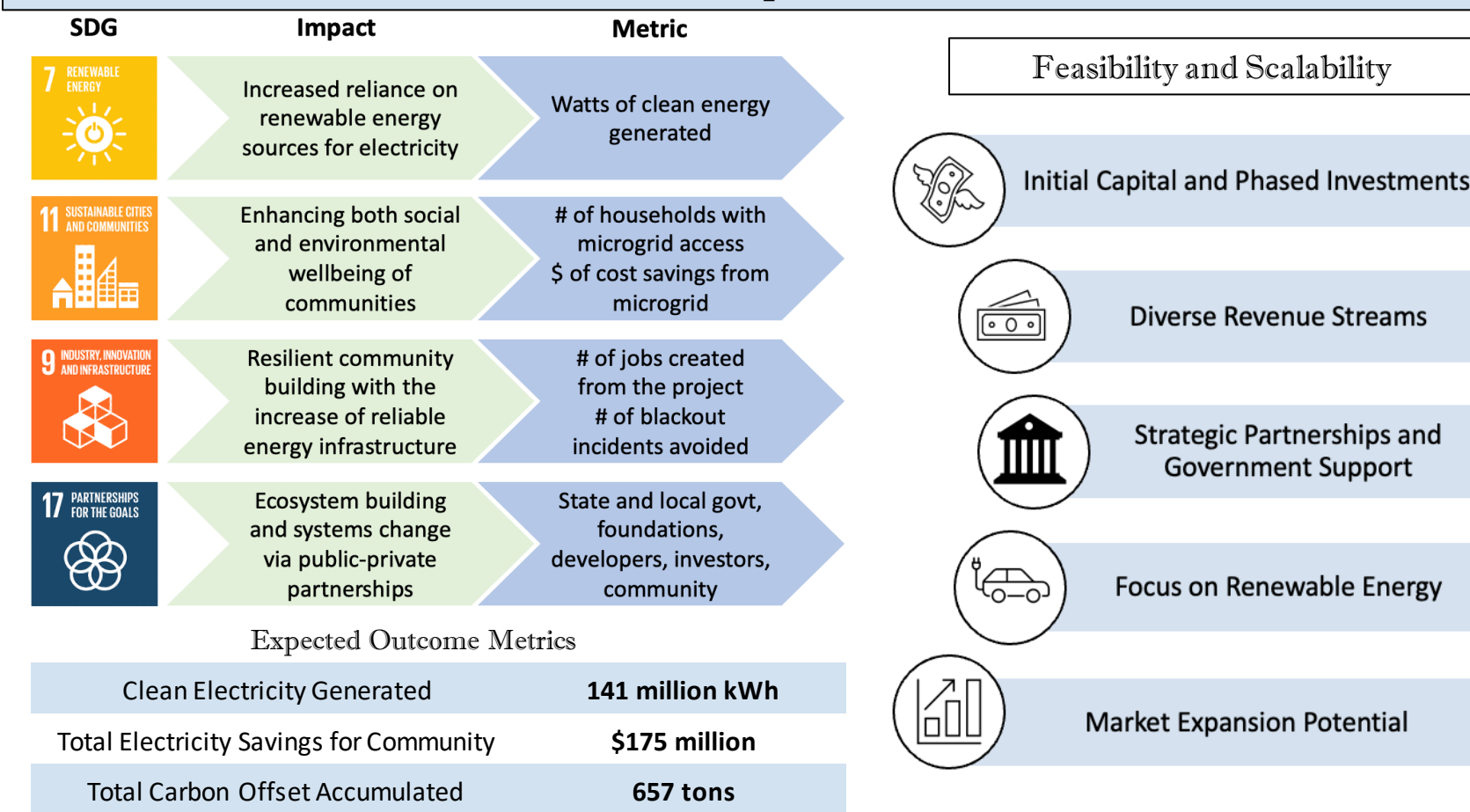
## Illustrative Fund's Revenue



## Illustrative Investors Cashflow



## Impact Assessment Across The Value Chain



## Risk and Mitigation

Risk	Situation	Mitigation
<b>Revenue Risk</b>	<ul style="list-style-type: none"> <li>The volatility of the Carbon Credits Markets may arise from oversupply.</li> <li>Estimated revenue streams from incorporating renewable energy, battery storage, and EV charging to the community may not materialize if demand from the microgrid falls below expectations.</li> </ul>	<ul style="list-style-type: none"> <li>Proactively communicate with local authorities with the new regulatory guidance, take the initiative to focus on bolstering trust in carbon credits.</li> <li>Diverse revenue streams by selling the carbon credit and renewable energy certification to large organizations such as big tech companies.</li> </ul>
<b>Financing Risk</b>	<ul style="list-style-type: none"> <li>Interest rate increase may result in difficult in raising the additional funds.</li> <li>There are uncertainties in potential financial returns of the fund, which may lead to the investors being dissatisfied with the returns and unwilling to continue investing in the fund.</li> </ul>	<ul style="list-style-type: none"> <li>Utilize hedging strategies: Investing in Sovereign Bond such as Green Bonds, which provide income at a fixed rate to hedge increased interest rate.</li> <li>Perform thorough due diligence before investing the microgrid community to understand the risks and potential returns.</li> </ul>
<b>Regulatory &amp; Policy Risk</b>	<ul style="list-style-type: none"> <li>There are uncertainties that tax policies may change for renewable energy and microgrid community projects, which could indirectly impact the attractiveness of the fund.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct scenario analysis through financial modeling to account for changes in Investment Tax Credit policies.</li> <li>Prioritize initiating the microgrid project in states with lower policy-related risks.</li> </ul>