



"SmartRoots Housing: Regenerative Living Through Tech & Equity"

Presented by Curtis Wiltshire, COO curtisw@afreefoundation.org

1818 Jackson St,
Scranton pa 18504
(570) 687-6585

01

EXECUTIVE SUMMARY

Overview

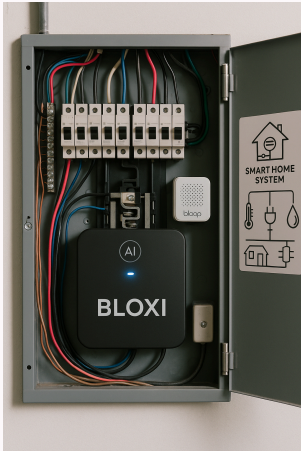
Afree Foundation proposes a bold, tech-driven affordable housing initiative integrating two proprietary technologies Bloxi and Bloop into the development of regenerative, net-zero-ready homes. This project directly addresses the housing, energy, and connectivity crises impacting underserved communities by reducing the total cost of living, improving infrastructure resilience, and unlocking new revenue streams through environmental data monetization.

Key features and capabilities

- Bloxi AI sensors for CO₂, temperature, humidity, and energy monitoring
- Predictive maintenance and automated anomaly resolution (self repair)
- Data tokenization through Clarity smart contracts for carbon and resilience credits
- Bloop mesh network with low-power, adaptive routing and internet access
- Integrated job training, food access, and health programming onsite

Benefits

- 0% reduction in household utility bills
- 70% decrease in reactive repair calls
- Secure, high-speed internet for telehealth, education, and work
- Revenue from energy and CO₂ data licensing and marketplace participation
- Improved housing stability and cost predictability
- Scalable to multiple sites; pilot success proven at 1818 Jackson St



02

PROBLEM

- **Unstable Housing:** 7+ million households are cost-burdened, paying more than 30% of income on rent.
- **High Utility Costs:** Energy bills in aging housing stock are unpredictable and unaffordable, often exceeding 15% of household income.
- **Digital Divide:** 42 million Americans lack reliable broadband access, limiting access to telehealth, remote work, and education.
- **Climate Vulnerability:** Existing housing infrastructure is ill-equipped to withstand extreme weather events or to participate in resilience or carbon markets.

SOLUTION

- **Bloxi:** A self-healing IoT system that monitors energy, air quality, and infrastructure health in real-time. It predicts and prevents failures, reducing reactive maintenance costs by 70%.
- **Bloop:** A mesh broadband network that ensures 99% uptime and decentralized internet access, even during outages or infrastructure failures.

Together, they:

- Enable **net-zero-ready** housing that slashes energy bills by up to 40%.
- Provide **reliable, equitable connectivity** for underserved families.
- Generate **tokenized carbon and resilience credits**, creating new revenue streams.
- Support **wraparound community services** on-site (job training, food access, education).

03

MARKET OPPORTUNITY

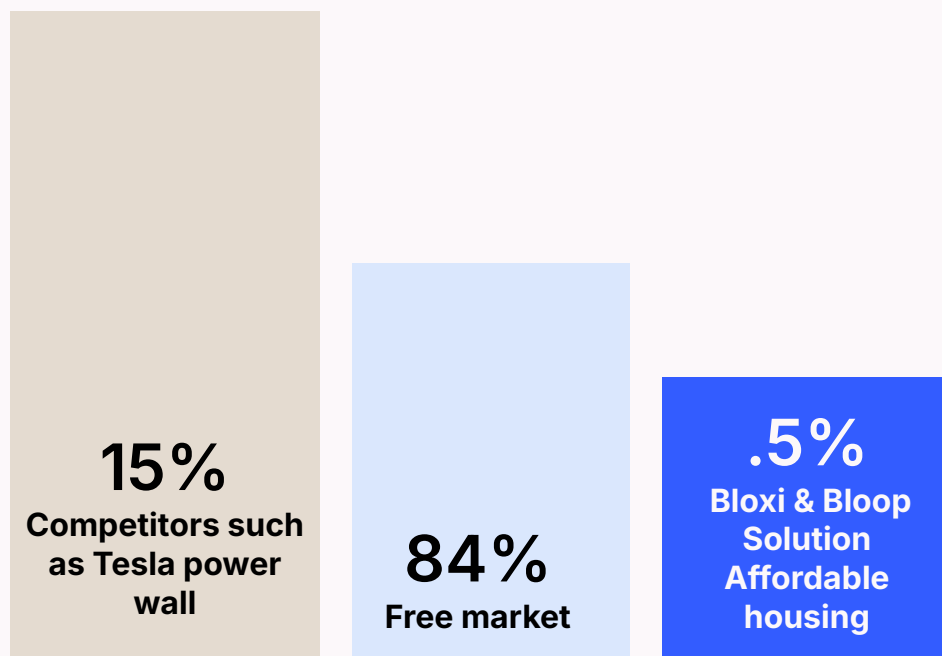
Total Addressable Market (TAM).

Target Customer Demographics & Needs Low-income Black and Brown families, single parents, and returning citizens in post-industrial regions (e.g., Luzerne and Lackawanna Counties). They face unstable housing costs (>30% income), high utility and food expenses, digital exclusion, and limited access to job training or health services. They need affordable, resilient homes with predictable expenses, reliable internet, and on-site support.

Why Now?

Economic Pressure: Rising energy and housing costs intensify demand for integrated, cost-reducing solutions.

- **Policy & Funding:** Increased federal/state grants for green infrastructure and digital equity open funding windows.
- **Tech Maturity:** Advances in IoT, AI, and blockchain make self-healing buildings and data monetization financially viable.



04

COMPETITIVE LANDSCAPE

Direct competitors.

- **Tesla Powerwall & Autobidder:** Focused on energy storage and grid monetization using smart home systems; however, they lack integrated housing, broadband, or service-based community models.
- **Sense & Arcadia:** Offer energy monitoring tools, but do not include predictive maintenance, mesh networking, or carbon tokenization.
- **EcoBee, Nest (Google):** Provide smart thermostats and partial home automation but are designed for retrofit, not embedded in housing ecosystems.
- **Affordable Housing Developers (e.g., Habitat for Humanity):** Provide cost-accessible housing but do not integrate advanced technology, resilience, or data monetization systems.

Indirect competitors/Alternatives:

- **Low-income housing with subsidized broadband:** Offers access to the internet but lacks self-healing systems or monetizable data models.
- **Local ISPs and municipal broadband initiatives:** Address digital inclusion but not housing resilience or environmental data.
- **Nonprofit energy weatherization programs:** Improve energy efficiency but without AI, IoT, or blockchain components.

Summary of competitive advantage.

- Only platform that combines smart housing, AI-driven infrastructure, decentralized internet, and blockchain-based data monetization.
- Self-healing architecture reduces O&M costs by 70%.
- Resilient mesh broadband ensures 99% uptime with no dependency on single ISPs.
- CO2, energy, and performance data creates a new source of revenue through tokenized carbon/resilience credits.
- Built for underserved communities with equity and accessibility at its core.

Market Opportunity:

- 7M+ households in the U.S. face housing instability and digital exclusion.
- \$10B+ voluntary carbon and resilience credit markets projected by 2030.
- Opportunity to disrupt both housing and broadband models with a self-sustaining infrastructure.

05

TEAM



Rashida Lovely
CEO

Founder/inventor, focusing on technological innovation for the social good



Najimah Lewis
CTO

Technology Officer, focusing on mesh network, cybersecurity & Cryptology



Curtis Wiltshire

CEO

**Handles Operations of
Organization and oversees
Mitigation of environmental
impacts**

07

THE ASK

We are seeking a **\$1million** in funding to complete and scale our Bloxi + Bloop-powered regenerative housing pilot in Lackawanna County. This capital is critical to achieving our objectives of proving the model, driving ongoing revenue, and catalyzing multi-site expansion..

The funds will be used as follows:

\$600k For continued research and development which includes construction of self regenerative affordable housing.

\$200k **Technology Deployment** Install Bloxi self-healing IoT nodes, Bloop mesh broadband infrastructure, and Clarity smart-contract integration.

\$200K **Operations, Monitoring and community outreach** Cover project management, maintenance staffing, and data-analytics platform costs through the first year of occupancy. Launch on-site job training, health workshops, and food-security programming; fund resident engagement.

With this investment, we anticipate achieving:

- Product launch within 12 months
- Projected revenue of \$3.5 million within the first 3 years of operation
- Break-even expected within 18 months after launch

Our experienced management team, coupled with an innovative product offering and a well-defined growth strategy, positions us for significant success in this rapidly evolving industry. We welcome the opportunity to discuss funding opportunities in greater detail and answer any additional questions you may have.

Current Impact Metrics (Pilot) 1810 Jackson st, Scranton PA Community Center

- **Daily Users:** 35 community center visitors supported.
 - **Energy Savings:** 2 MWh in 3 months at 1818 Jackson St.
 - **Fault Resolution:** 90% anomalies auto-resolved within 24 hours.
-