

# EcoVista: Resilient Agri-communities

A Hurricane-Resistant Oasis in Louisiana

The CleanTech Development Institute







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# Who Is The CleanTech Development Institute?

**Mission**

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## **TEAM**

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# Services

- Design
- Development
- Energy Management
- Economic Development
- Voucher Program Assistance
- Home Ownership Assistance
- Clean Energy Solutions
  - Homes
  - Municipalities





# Belle Point Resilient Agrihood:

A Smart and Connected  
Hurricane-Proof Housing  
Development\*\*





# Sustainable Agriculture

- Incorporating advanced agricultural practices
- Local food production
- Community gardens







# Regenerative Design

For CDI, sustainability is more than just a buzzword—it's a way of life. Our expert architects and planners have meticulously crafted each home and community structure to optimize energy efficiency, reduce waste, and promote a harmonious relationship with nature. The architecture seamlessly blends into the surrounding landscape, minimizing its ecological footprint while enhancing the overall aesthetic appeal.

The agrihood concept fosters a self-sustaining ecosystem, encouraging residents to actively participate in organic farming, biodiversity conservation, and responsible land management practices.



# Resilience

- Hurricane-resistant design
- Building materials and construction techniques
- Disaster preparedness

## **Hurricane-Proof Housing:**

Located in a region prone to hurricanes, the safety and security of our residents are of utmost importance. The housing development boasts a pioneering hurricane-proof design, featuring robust materials and structural reinforcements that can withstand extreme weather events. Additionally, the strategic layout incorporates natural barriers to minimize storm impact and incorporates a comprehensive emergency response plan to ensure residents' safety during adverse conditions.







# Smart and Connected Infrastructure

Our Resilient Agrihoods are havens of smart technologies that work in unison to simplify daily living and enhance comfort.

Every home is equipped with cutting-edge IoT (Internet of Things) devices, enabling residents to control lighting, climate, security, and appliances remotely through integrated smart home systems. Moreover, an AI-powered central management platform optimizes resource usage, ensuring energy efficiency and waste reduction across the community.



# Independent WET Nexus Microgrid

At the core of our energy infrastructure lies the innovative WET nexus microgrid—an independent, self-sustaining system that efficiently harnesses and manages the essential resources of Water, Energy, and Technology. This groundbreaking microgrid integrates solar panels, wind turbines, and advanced energy storage solutions to harness renewable energy and reduce dependence on the conventional grid. Rainwater harvesting and graywater recycling systems promote water conservation, making Belle Point a model for resource management and resilience.

## Gray Water Systems

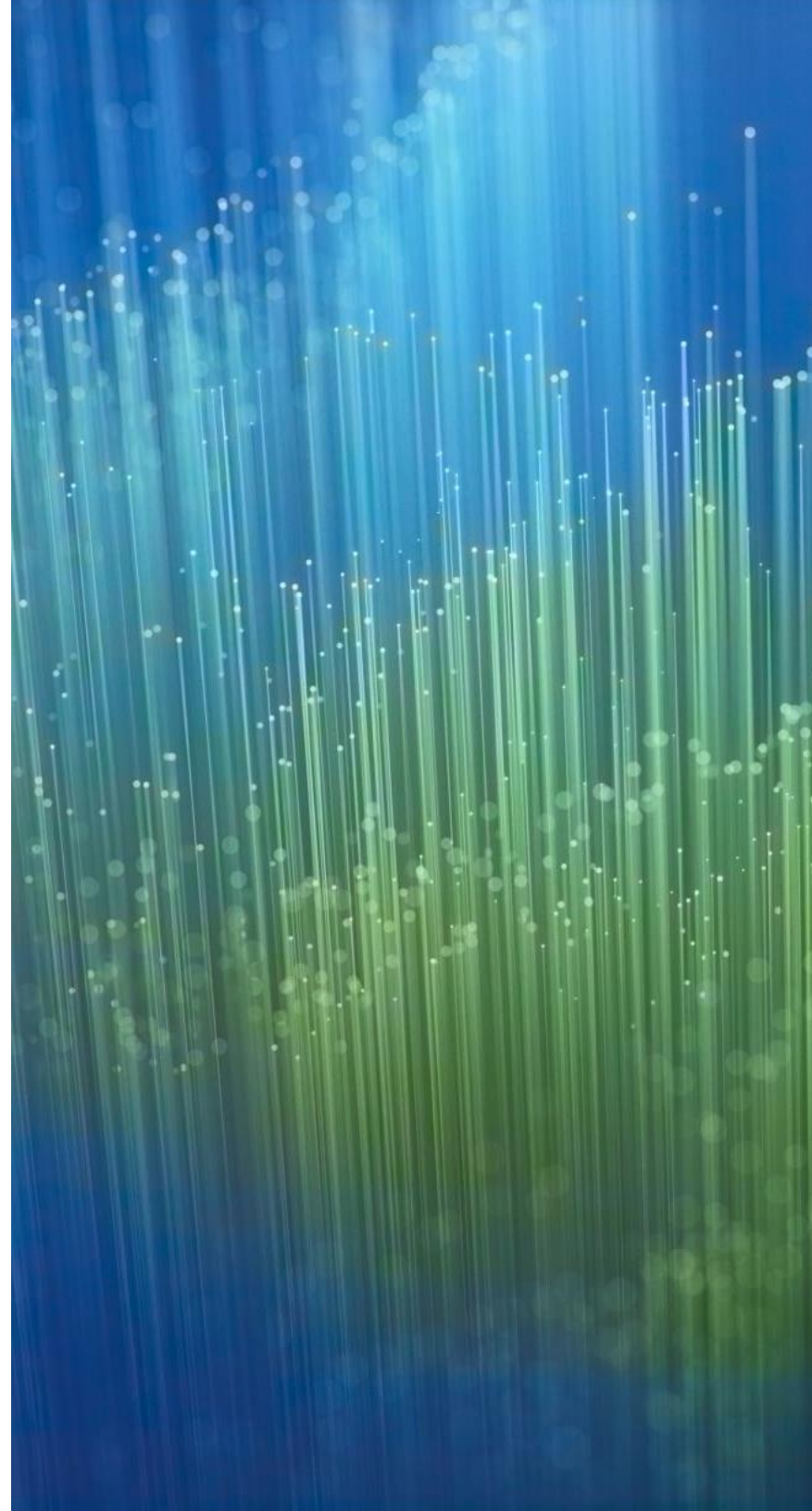
- Utilizing retention ponds
- Water recycling
- Sustainable water management

## Smart Grid

- Self-healing smart grid infrastructure
- Efficient energy distribution
- Grid resilience

## Internet Connectivity

- Free high-speed internet for all residents
- Promoting digital inclusion







# Distributed Energy Resource Infrastructure Master Plan

This plan orchestrates the integration of various renewable energy sources, storage technologies, and intelligent energy management systems, creating a robust, reliable, and decentralized energy network. This not only ensures a consistent power supply but also paves the way for the agrihood to share surplus energy with neighboring communities, fostering regional sustainability and collaboration.

- Integration of solar panels
- Wind turbines
- Energy storage systems
- Energy independence

Modern utilities companies are under growing pressure to reduce carbon emissions and transition to renewable energy sources. For the first time in history, utilities are not the sole energy providers, as distributed energy resources (DERs) owned by third parties and prosumers are also producing power for the grid. Lower costs for photovoltaic (PV) solar equipment and other renewable energy assets, along with government incentives, are driving the growth of DERs in the energy sector.

Leading the charge toward these new operational models are prosumers. As a whole, prosumers demand more from their utility service providers, including more control over on-demand services, improved self-sufficiency, and transparency on their own terms. While DER asset owners may at first seem like a competitor on the energy market, the most innovative and fearless utilities industry leaders not only accept that these changes are coming but are already seizing new opportunities for growth and industrial diversification.





# Telemedicine

- Healthcare
- On-site healthcare facilities
- Tele-present healthcare services
- Promoting community well-being





# Community Storehouse

- Central storehouse and hurricane shelter
- Food and supply storage
- Emergency response readiness



# Environmental Impact

- Reduced carbon footprint
- Ecosystem preservation
- Sustainable living



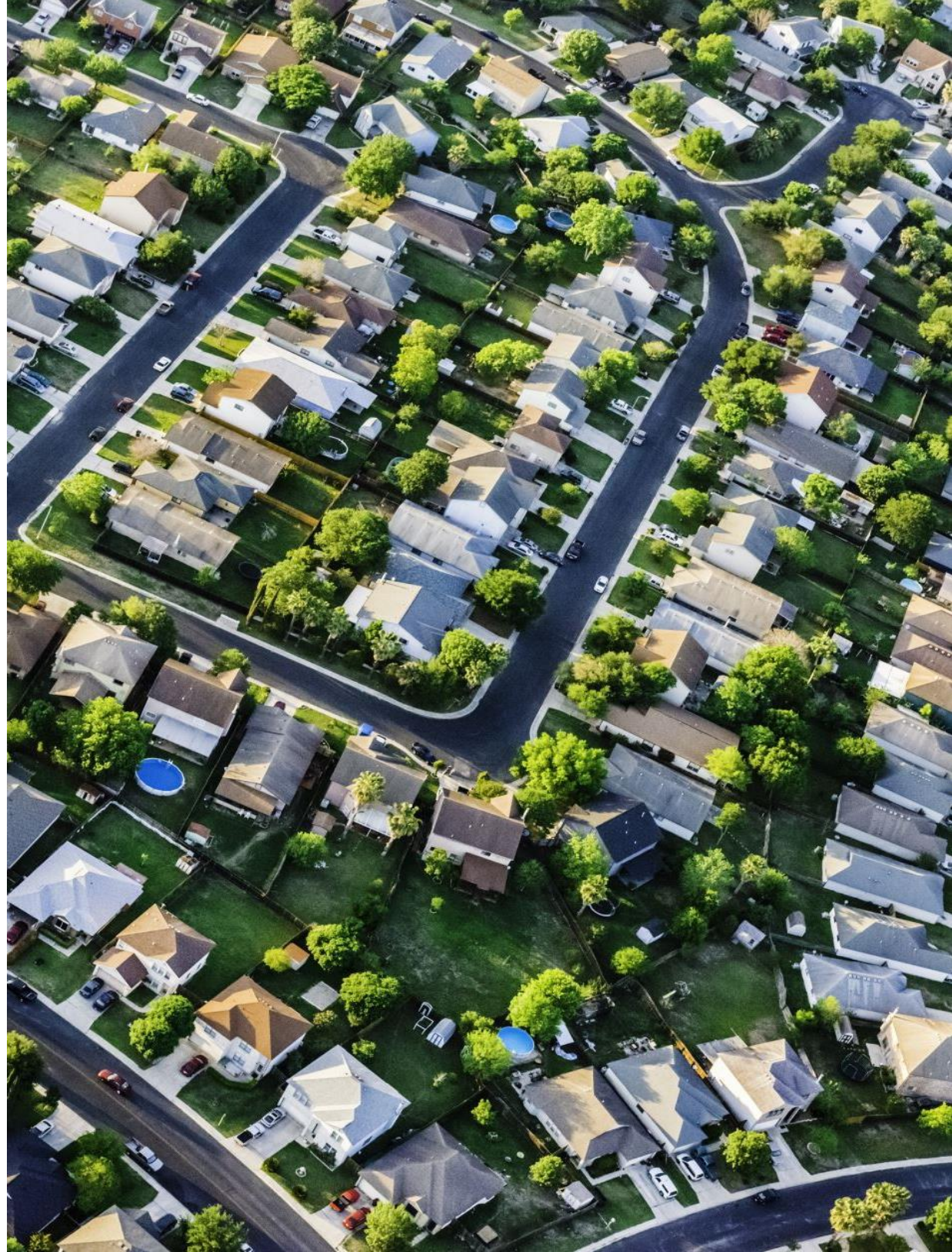


# Benefits

- Vibrant Community life
- Parks, recreational areas
- Sustainable transportation options
- Economic benefits for residents
- Disaster resilience
- Sustainable living

## **Embrace the Future at our Resilient Agrihoods:**

Our Resilient Agrihood stands as a testament to the limitless possibilities of sustainable living. Our future-driven approach to smart and connected housing, hurricane-proof design, and WET nexus microgrid sets a new standard for communities. Join us towards a greener, more resilient, and self-sustaining future in Louisiana.







We combine three sustainable and resilient system partners to create a proprietary and unparalleled housing system for areas prone to natural disasters.











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