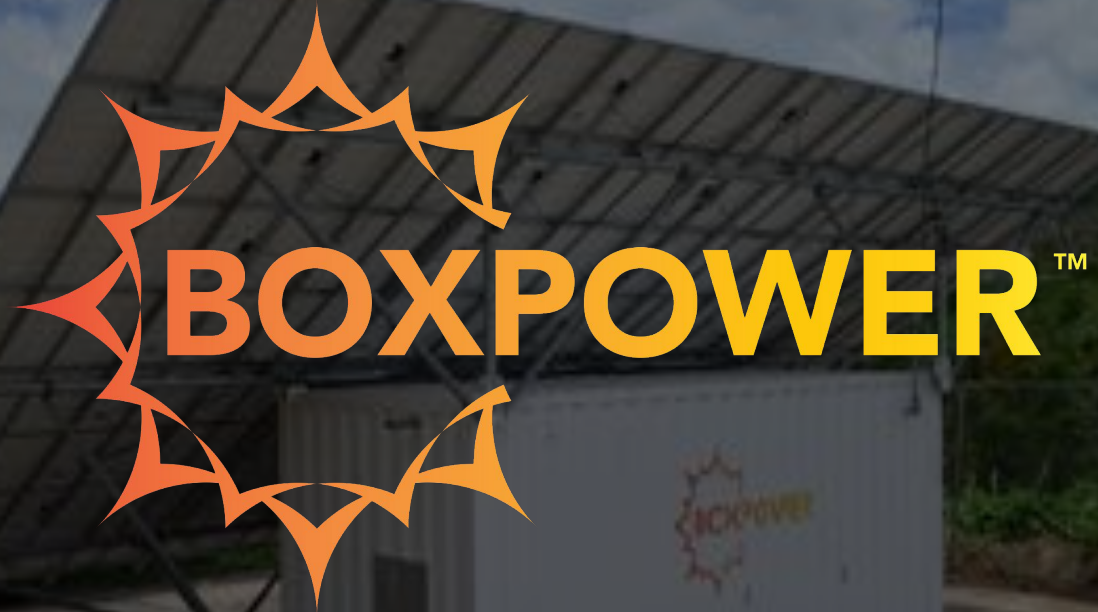


Forbes



theguardian

**HOMER** International  
**MICROGRID** Conference | 8th Annual | #HIMC2020



# MICHELE NESBIT

Co-Founder/COO/RMO



- Co-Founded BoxPower in 2018 when it entered the commercial market
- 8 years experience in the industry
- Studied Mechanical Engineering and Material Science & Engineering at UC Berkeley
- Inspired by the challenges of rural living and sustainability
- Global Good Fund Fellow 2020

# Timeline



**2011**  
Founded at Princeton University, funded by NSF & EPA

**August 2016**  
First money raised

**February 2017**  
Incorporated as Delaware C Corp

**May 2018**  
First commercial deployment in Puerto Rico

**November 2019**  
Team grows to 10

**May 2020**  
First IOU Utility project  
First \$1M project

**2012**  
Wins first place at the National Sustainable Design Competition

**October 2016**  
Incorporated as LLC

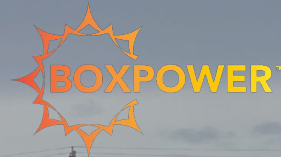
**March 2018**  
Team grows to 5

**September 2018**  
First village electrification (Buckland)

**2019**  
Recognized by Forbes 30 under 30, Navigant, FastCompany

**June 2020**  
Team grows to 15, \$1M Grant to demonstrate virtual power plan capabilities.

**Total: 30 systems sold (25 installed) offsetting 30 million pounds of carbon dioxide**



*“BoxPower has streamlined the design, procurement, and installation process for solar microgrids in one of the most challenging regions in the world.”*

*— Brain Hirsch, Deerstone Consulting  
Current Distributor of 6 systems*



# Project Examples

- Off-Grid Generator Replacement
- Critical Facilities Resilience
- Remote Wire Replacement



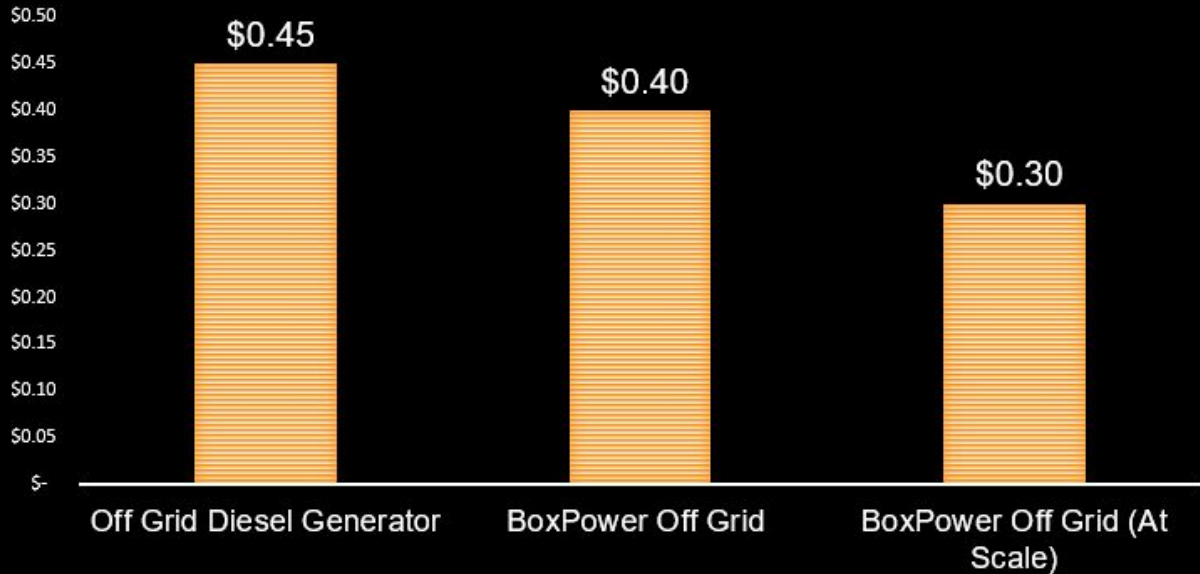


# Off-Grid Generator Replacement



# Off-Grid Generator Replacement

## BOXPOWER OFF GRID PER KWH



- 24/7/365 reliability
- 2 Million pounds of CO2 offset



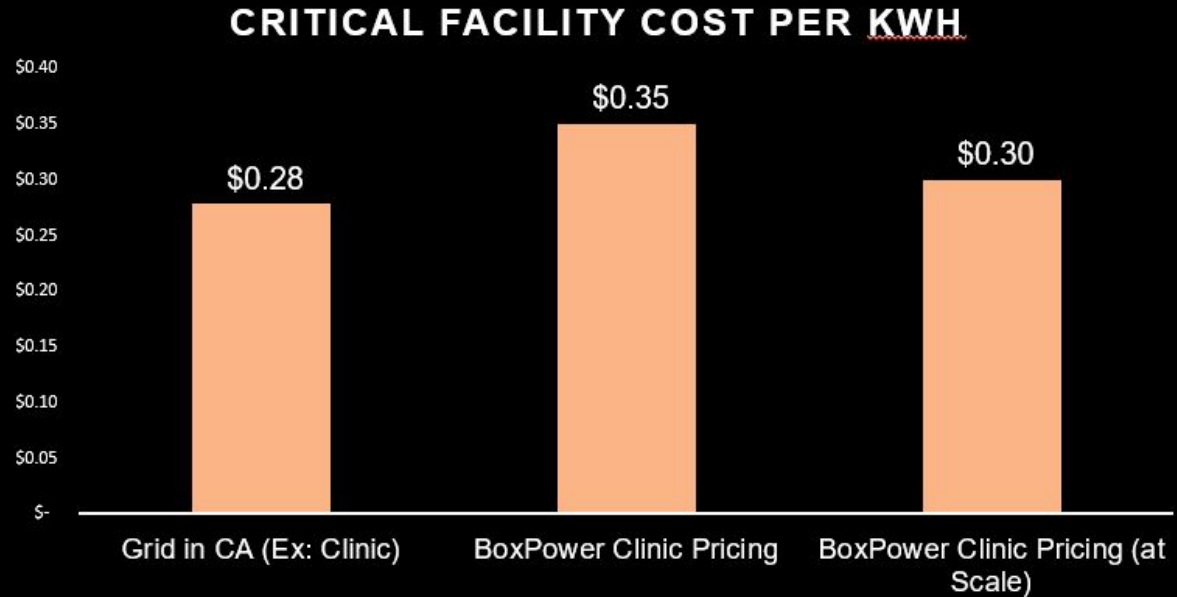
# Critical Facility Resilience





# Critical Facility Resilience

- Saving lives with essential power (ex: respirator/ dialysis)
- Millions of dollars in savings from vaccine, insulin, and medicine spoilage
- “\$50-\$100K a year in lost funding”

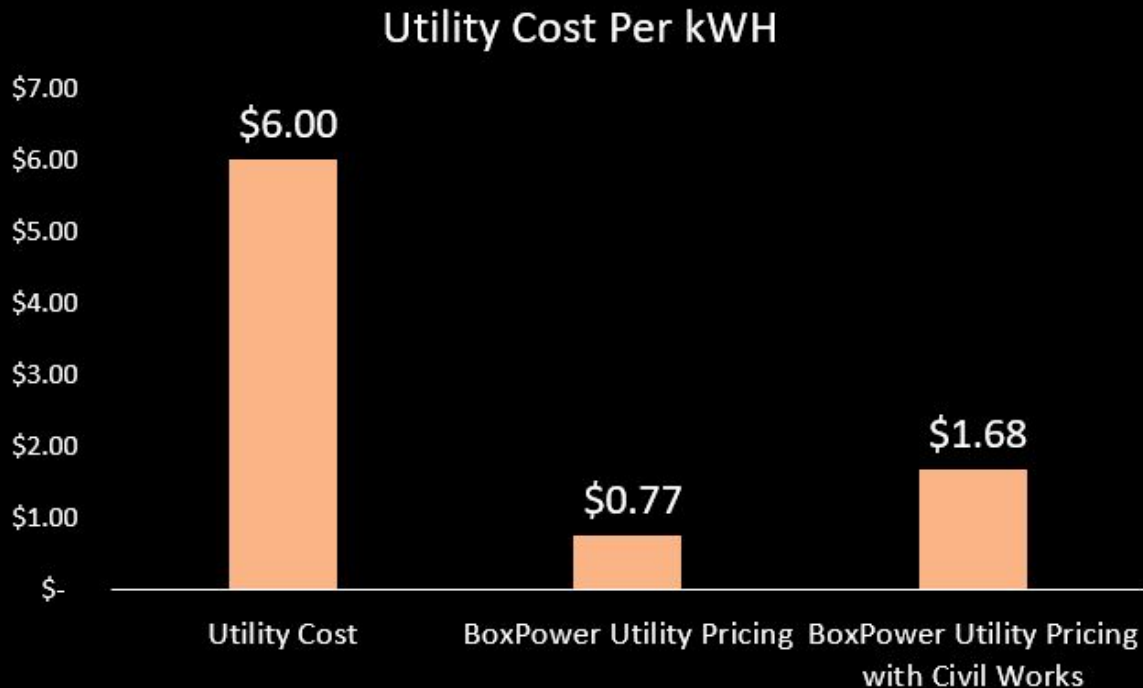




# Remote Wire Replacement

# Remote Wire Replacement

“It would have cost about **\$3 million** to harden the 4-mile line, which has 90 poles and serves only one customer” – BoxPower California Utility Customer



# Problems Limiting Utility Adoption of Small-Scale Microgrids:

1. **Uncertainty, time, and cost of the system design process**
  - a. Costly data collection, lengthy RFP process, lack of clarity.
  
2. **Disproportionately large cost of engineering, design, and permitting for small systems**
  - a. “Fixed” costs result in poor return profile
  
3. **Lack of standard SCADA, monitoring, and controls**
  - a. Limit integration and utilization of microgrid benefits



# BoxPower Solutions:

1. Energy Audit and System Integration (EASI)
2. Turnkey solar, battery, and generator microgrids
3. Modular Intelligent Energy Management Software (MIEMS)





# Software Optimized Design

## Energy Audit & System Integration (EASI) Software

1. Determine customer energy needs
2. Optimize BoxPower System for energy savings
3. Provide pricing, financing options, and savings analysis for BoxPower products.

Reduces engineering time and cost by more than 75%





# Turnkey Microgrids

Reliable, Fast, and Affordable + Standardized for Scaling



● MiniBox



● SolarContainer



● Multi-box Custom Systems

# MIEMS



## Modular Intelligent Energy Management System (MIEMS)

Funded by 2020-2021 \$1M California Energy Commission Grant

- Use weather forecasts to optimize use of PV, battery, grid, and genset
- Peak demand reduction
- Voltage and Frequency regulation
- Time of Use Optimization
- Data consolidation and aggregation for resale
- Virtual Power Plant capabilities

Optimize generation and grid interaction for highest return







# Thank you for listening!

**MICHELE NESBIT, COO**



info@boxpower.io



530-277-3038



HTTP://BOXPOWER.IO

