

# 2ndLife Batteries®

More Energy For Less Cost Through Knowledge™

> John Kincaide President

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## THE PROBLEM?

Why most Homes not covered with Solar Panels?

Affordability is problem

- US Household Income (HHI)
- 50% of households in the US earn 69K or less
  - Of that 35% < 36K/year (50M homes)
  - Remaining 15% earn 37K-69K/Year (21M Homes)
- \$20K to Professionally Installed Solar in 2023
  - Energy Storage is the most expensive

# Where do you store your Energy?

- Net Metering (Grid-tied) so you push excess energy to the grid
- Batteries (Off-Grid) store your energy in your home and business
- Net Metering is not OK:
  - Recent Curtailment is a reality in California Stretching ROI out 2 or more years
  - The grid is down for long periods time
    - storms (i.e. Hurricane Maria in Puerto Rico), and forest fires in CA

### 2NDLife Batteries = \$88/Kwh

- We rescue non-spillable backup batteries from a premature firey death in a lead smelter furnace, and we reuse them, test them, and SELL them.
- Since 2017 Sold 9MWhs of batteries
- Power 450 homes 8 hours every night





# **Backup batteries - Forgotten Sentries**

- They are forgotten guardians against disaster
- But they are hardly used Tested 2 times a year
- They use grid power to keep them alive
- And they are changed out every 3-5 years
- They are no longer trusted in their backup mode - but have value in solar

### Backup Batteries get a 2ndLife soaking in the Sun

- 2ndLife Batteries remanfactures them for solar/wind projects
- They have ample discharge/charge cycles left to last 3-5 years
- 3 Year Limited Warranty

# **Highly Recyclable**

- Lead-Acid batteries have 98% Recycle Rate in the US/Canada
- Recyclers pay for them
- Li-ion some have little recycling value, and one called (LFP) used in solar has -\$35.00/Kwh to recycle
  - Huge Long Term Liability

# **IP/Technology**

- Sources of Batteries is a Trade Secret
- Testing and procedures for selection to minimize cost
- Passive Ongoing temperature monitoring tags for warranty and performance
- These keep costs down, and improves performance

# **BUSINESS MODEL AND TARGET MARKET**

- Sell to Solar Distributors and Solar Installers to bring solution to end user customers.
  - Domestic market
    - Distributor in Puerto Rico sold over 400Kwh in a year
    - International Markets
      - Soon Caribbean and South Africa though Global NY
  - Potential for \$400K (4.5MWh) from sources this year

# COMPETITORS

- New Lithium-Ion and lead-acids batteries
  - Offer longer performance but costly
- Other Second-Life companies using used EV-Batteries
  - They have a long road to climb
    - Sourcing is volumes are sporadic
    - Barrier is Safety Testing (UL) Very Expensive to change EV to Stationary Storage
- 2ndLife Does Stationary Storage to Stationary Storage less work, less testing
  - safer to market

## Go To Market Strategy

- Direct Sales to Solar Distributors/Installers to build customer reputation and distribution
- Education is Key
  - Social Media
  - Webinars for solar installers
  - Trade Show Events
  - Public Speaking events

### **Management Team**

#### John Kincaide, President



Serial Entrepreneur with over 40 years of professional experience, in computer, telecom, voice processing, analyst, and batteries for the past 13 years. Owner of WeRecycleBatteries.com, where it has recycled millions of lbs of various batteries, and 9MWh of 2ndLife Batteries.

He noted speaker and NAATBatt.org co-chair on the Second-Life, Recycling and Track and Trace Committees. He has written several articles on technology topics, including the recently co-authored US Dept of Energy, NREL article <u>Electric Vehicle Lithium-Ion Battery Life Cycle</u> <u>Management</u>

### Management (Continued)



#### Joseph Tam

He is an entrepreneur, leader, engineer, and certified energy manager who brings 20 years of technical excellence and innovation as well as experience in business development, capital project planning, and project execution and management.

Lead technically challenging fields from commercial and industrial energy management, EV charging infrastructure, mobile, stationary energy storage product design, to material recycling.

- His passion for optimizing systems for maximum productivity and resource conservation.
- Developier of Jeeves <sup>™</sup> an energy storage optimization analysis for Demand Charge to best balance performance and ROI



2NDLIFE BATTERIES® ENERSYS®

#### FOR MORE INFORMATION

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