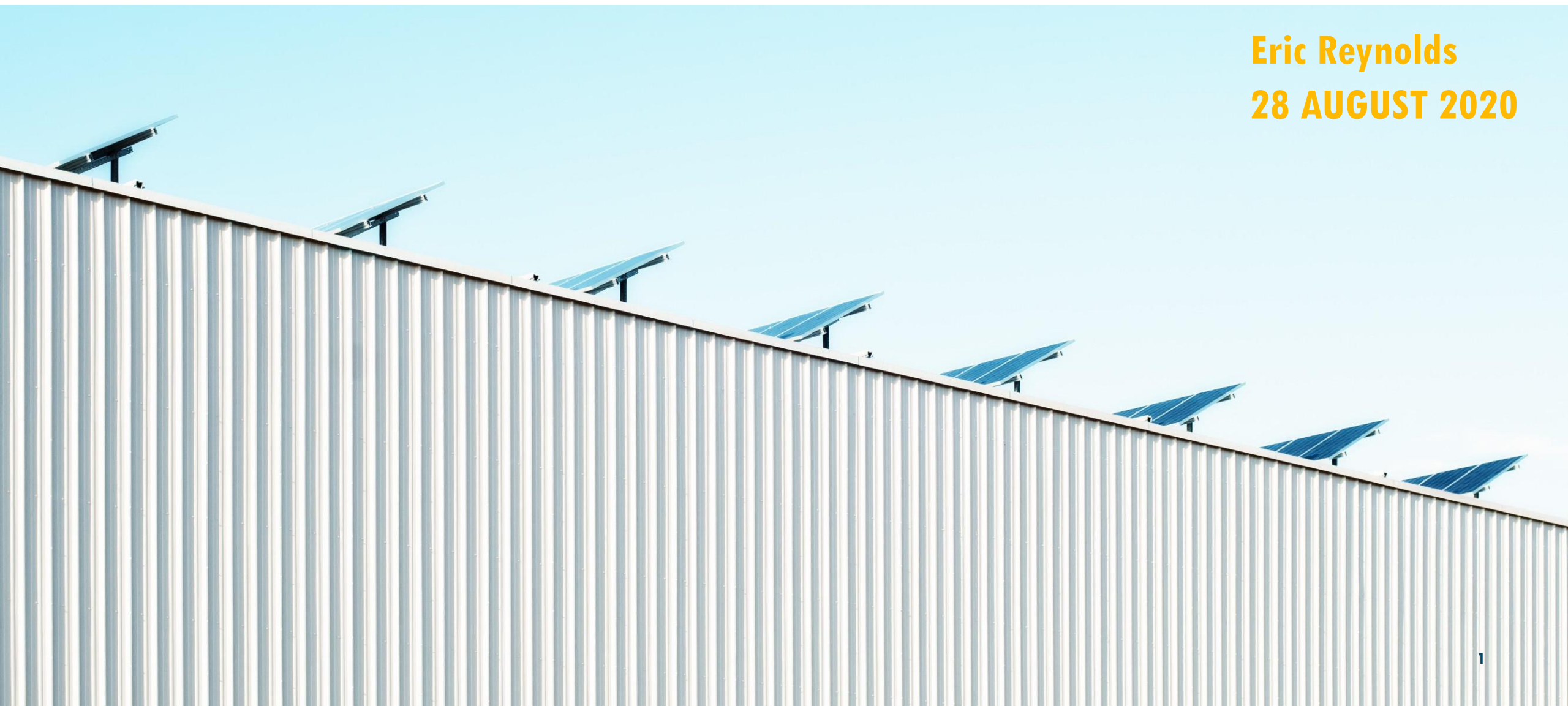


# Project Anwu

**Eric Reynolds**  
**28 AUGUST 2020**



# Presentation Guide

**Executive Summary**

**Project Background**

**Data Collection Methodology**

**Results**

**Recommendation**

# Executive Summary

Aspire Power Solutions

- Started in 2016 by Duke MEM/MBA & 2 co-founders
- Retail (< 50 kW) and Project Development Ventures (> 50 kW)
- *Providing Nigerians a better energy experience*



Situation

- Initial call notes
- First rural electrification project
- 6 communities located in SE Nigeria



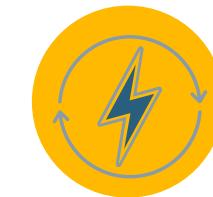
Complication

- Invest with the community, not in the community
- Lack of Data
- Financially Feasibility



Recommendation

- Utilize programs for electricity subsidization
- Solidify Partnerships
- Use financial tools at disposal



Executive Summary

Project Background

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# Project Background

Project Anwu was broken into 3 steps



Community Surveying  
& Data Collection



Data Analysis &  
Energy Load Profiling



Solution Design &  
Financial Modeling



# Survey Data Collection

**150 Households & 81 Businesses in SE Nigeria Surveyed in June 2020**



**Four Community Surveyors**



**5 Days**



**800 Pages of Data**



**Rural Nigeria** → **Rham, NC, USA**

**Executive Summary**

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# Mapping Data Collection

Every structure was tagged and a representative sample for each community was measured



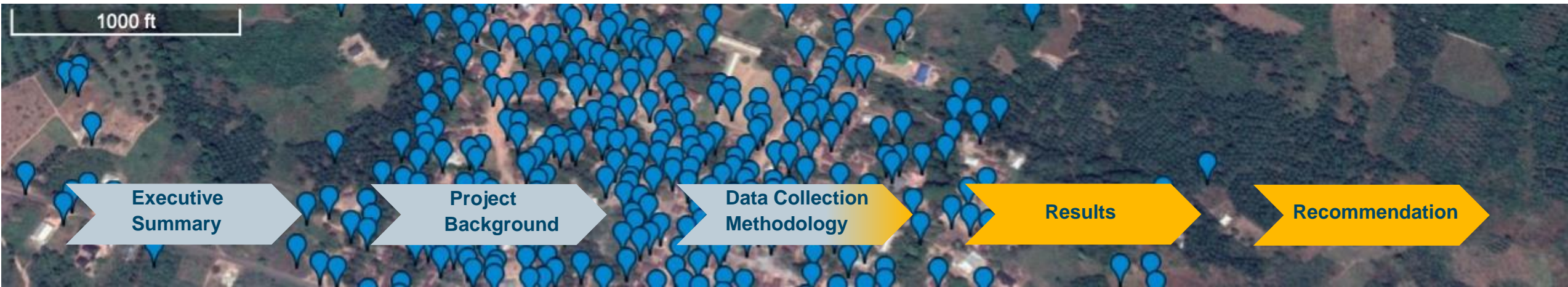
3,700 Structures Tagged



1,465 Structures Measured



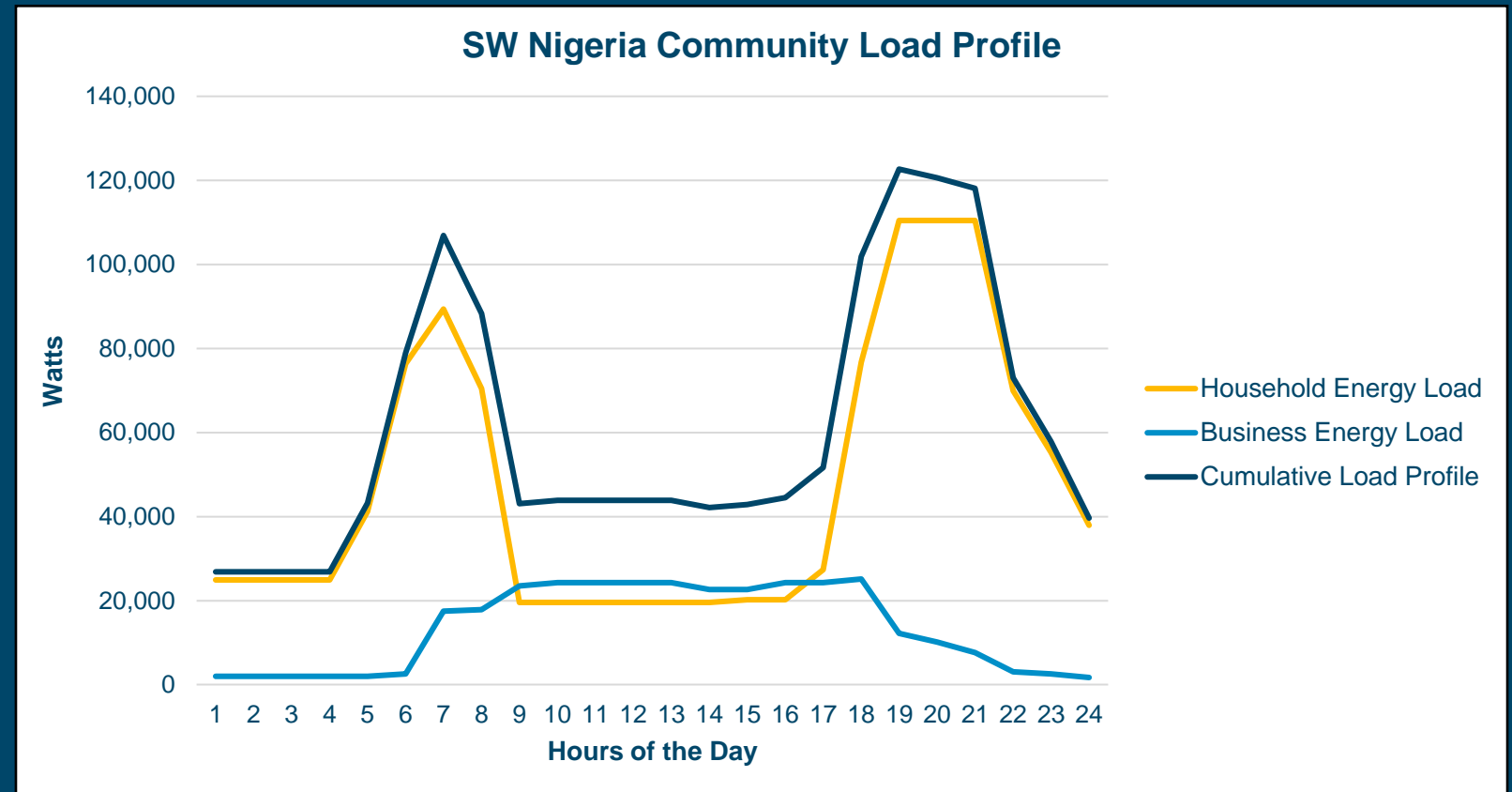
Top & Bottom 5% Eliminated as Outliers



# Results – Community Load Profile

**Community uses 43,752 kWh of energy each month with a peak daily load of 123 kW**

- Average household uses approx. 35.6 kWh/month
- Average household spends approx. ₦ 8,277/month
- Average business uses approx. 119.1 kWh/month
- Average business spends approx. ₦ 37,359/month



Executive  
Summary

Project  
Background

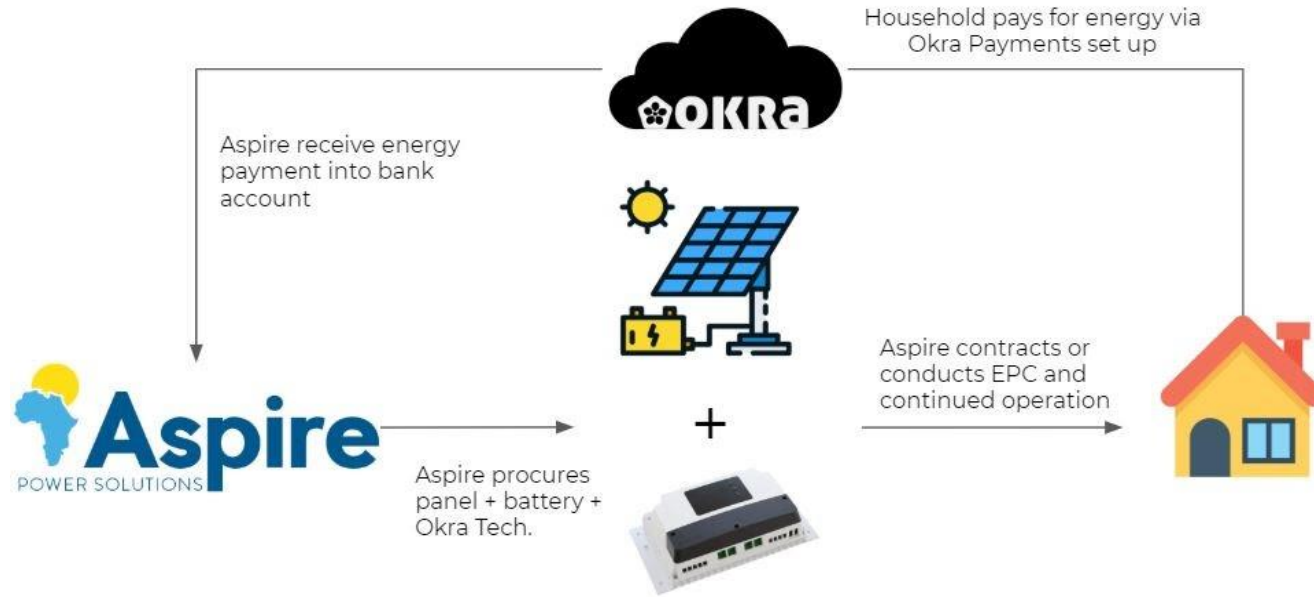
Data Collection  
Methodology

Results

Recommendation

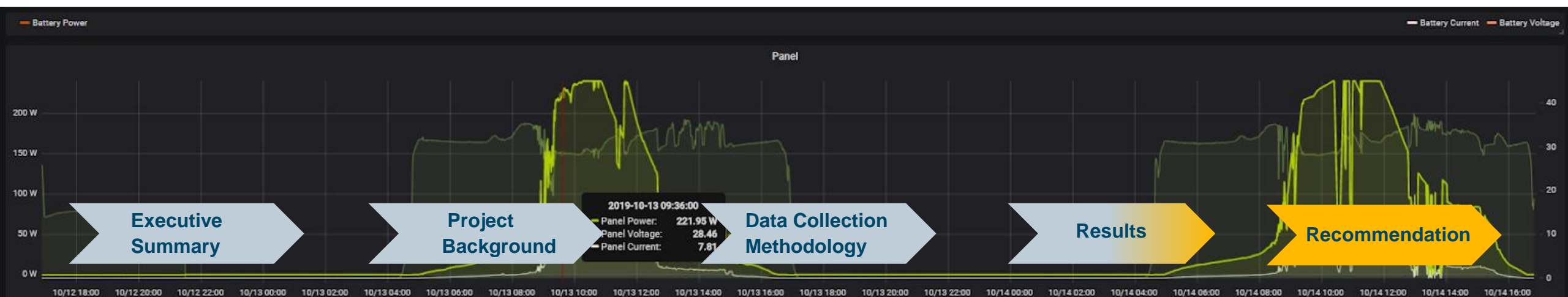
# Results – Solution Design

Aspire remains the on-ground developer but uses key technology partner



## Remote Pod:

- Remote Monitoring
- PAYGO Operations
- Power Sharing





# Recommendation

**Aspire Power Solutions should proceed with the development of Project Anwu if the following three factors are met:**

- 1) A subsidization of \$350 per connection through the Rural Electrification Agency is granted
- 2) Aspire will need signed contracts from several partners:
  - a) Partner A
  - b) Partner B
  - c) Partner C
- 3) A special purpose vehicle (SPV) be created and placed under the Aspire Power Solutions Holding umbrella.



# Thank you

