Updates on Off Grid Solar Kits (Electricity in a Box) Pilot Project

Kazuto Muraguchi and Samat Aldeev



THE 28TH CAREC ENERGY SECTOR COORDINATING COMMITTEE MEETING Batumi, Georgia 10 September 2018

Concept of "Electricity in a Box"

- Provide access to electricity in rural/remote area
- Super Efficient System:
 - ✓ Lithium-ion Battery
 - ✓ DC appliances
 - ✓ LED lights and TVs







- Low Costs
 - ✓ Less than \$1,200 per unit
- Plug-and-play
- Zero waste packages



Progress So Far

Asia Clean Energy Forum

(June 2017)

Exhibition by several firms in Manila

Identified firms capable of providing sample unit

Evaluation of Sample Units

- Evaluated 8 sample units in Manila
- Selection of firms capable of manufacture" Electricity in a Box" for pilot

(Sep to Dec 2017)

Finalization of Technical Specification (Jan 2018)

> Distribution Arrangement

(Feb 2018)

Detailed design of "Electricity in a Box" for pilot

Implementation Consulting Firm fielded

 Started site selection and distribution arrangement in Kyrgyz Republic and Tajikistan

Mid June - Units arrived at Bishkek



Distributed Sites in Kyrgyz Republic for Pilot



Base 803157AI (G00230) 12-05

Suusamyr Valley, Kyrgyz Republic













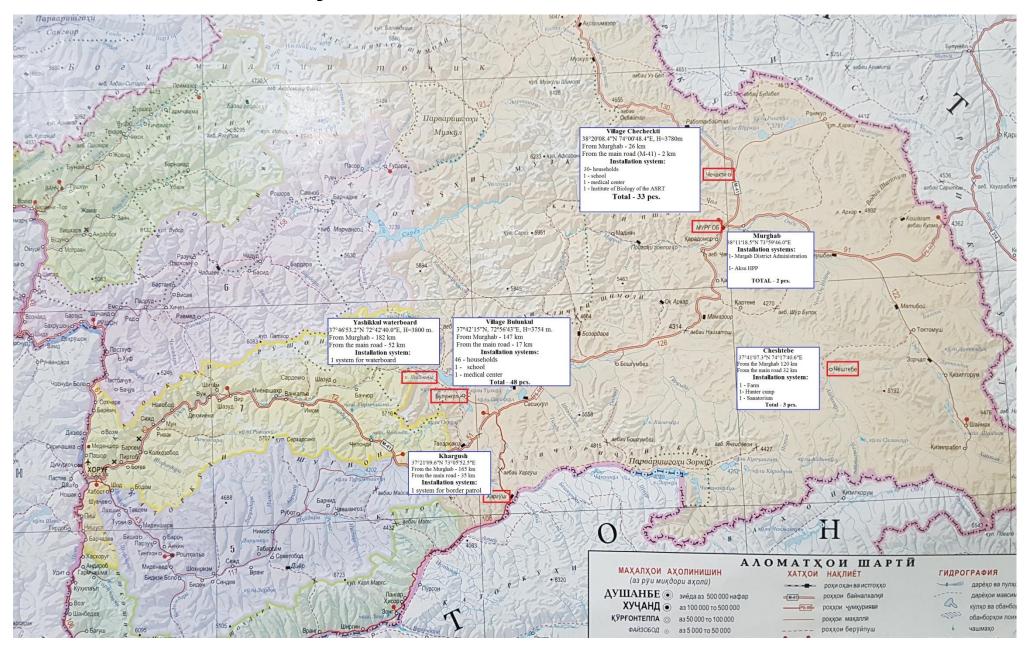
Kensuu, Kyrgyz Republic



Kyzyl-Beit, Kyrgyz Republic



Distributed Site in Tajikistan



Household in Bulunkul, Tajikistan













Household in Bulunkul, Tajikistan











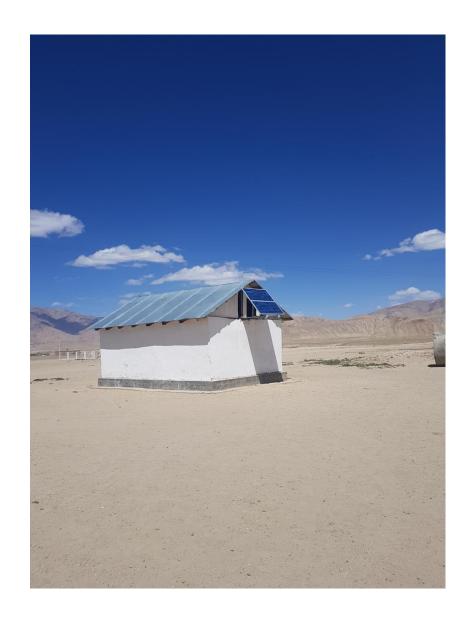
School in Bulunkul, Tajikistan







Medical center in Bulunkul, and Chechekty







School in Chechekty, Tajikistan





Business model for Scale up

- Cost Recovery (\$1,200)
 - \$20+/month for 5 years
 - \$200 for upfront fee + \$18+/month for 5 years
 - Average village household in KGZ pays \$10/month for Kerosene
 - Smaller system (\$400)
- Who collect? How to maintenance?
 - Utility Company
 - Partnership with Private Companies/NGOs
 - Village/Community