

Awardee: Nanoé

Project Title: Mesh-grid powered eCooking Solutions for Rural Madagascar

This project aims to assess the social, economic and technical feasibility of powering eCooking appliances in mesh-grids deployed in Madagascar by Nanoé within its Lateral Electrification approach. This rural electrification model is a concept of progressive and collaborative building of smart power infrastructures in rural Africa based on renewable energies, digital technologies and local entrepreneurship. Technologically wise, the Lateral Electrification model follows the swarm electrification concept of building electrical grids in a bottom-up manner, enabling modularity and scalability, by nimbly and progressively extending the energy services delivered to the end-users (from Tier 1 to Ter 5) through the diffusion and then the aggregation of basic smart power units (so-called Nano grids) regrouping solar power generation, storage and distribution.

This project will demonstrate through field surveys and field pilot deployment of 20 eCooking appliances (likely 16 rice cookers and 4 blenders) in 4 different village-wide mesh-grids, the technical and market potential of such innovative configurations and build a roadmap for large scale deployment of eCooking appliances by 2030 in rural Madagascar. The potential drivers and obstacles to adoption of eCooking technology as well as current cooking energy expenditures and willingness to pay for eCooking services will be determined to precisely design eCooking offers for their customer base.

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