



# Scaling Electric Cooking in Tanzania

TANESCO's Experience: From Pilots to Nationwide Programs

Closing the Clean Cooking Access Gap and Advancing Power Sector Decarbonization

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## **TANESCO & E-Cooking Adoption in Tanzania**

TANESCO is Tanzania's national power utility, serving over 5.6 million customers nationwide. The Company is championing the adoption of electric cooking (e-cooking) through partnerships, innovation, and public engagement to advance clean energy, protect the environment, and improve lives.

### **● Key Barriers to E-Cooking Adoption in Tanzania**

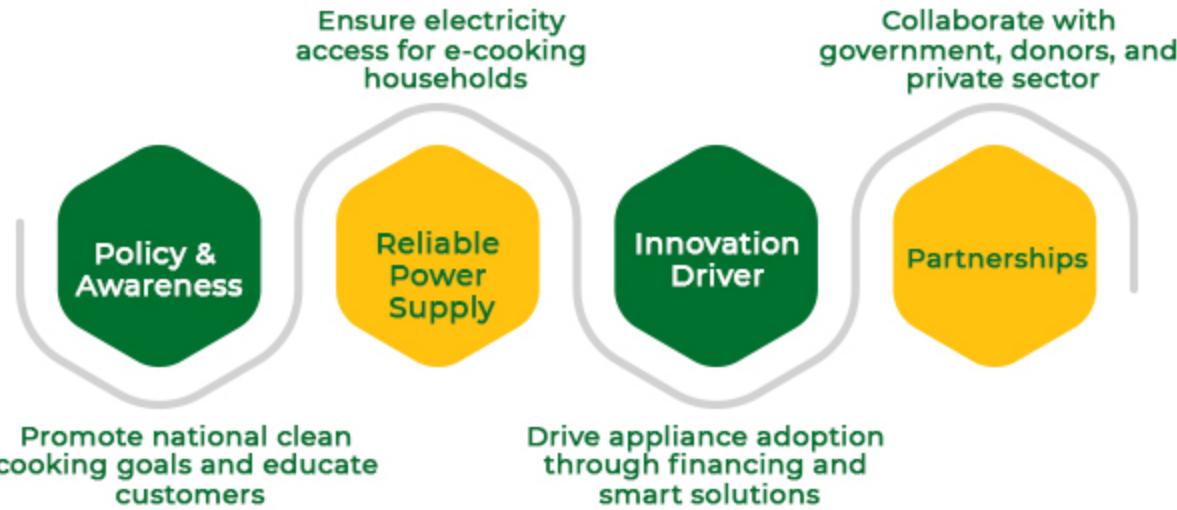
- High upfront cost of appliances (cookers, hotplates, pressure cookers)
- Limited awareness and misconceptions about e-cooking costs and safety
- Affordability constraints among low- and middle-income households
- Cultural cooking habits favoring charcoal and firewood
- Limited access to efficient appliances in rural and peri-urban markets



## 2. Why TANESCO is Leading the eCooking Agenda?

- A national utility with extensive nationwide reach and strong customer trust
- Adequate electricity generation capacity to support increased demand
- Opportunity to improve grid utilization and enhance load management
- Continued investment in grid expansion and network reinforcement
- Strong alignment with the National Energy Policy, Energy Compact, and climate change commitments

### TANESCO's Strategic Role in E-Cooking Adoption





## 1 3. Milestones in Advancing E-Cooking Adoption

- **Pilot Programs Implemented:** Successfully tested e-cooking solutions in selected regions.
- **Customer Awareness & Outreach:** Implemented nationwide awareness and demonstration campaigns including “Umeme Nishati Nafuu Zaidi Jikoni” and “Konekt Umeme – Pika kwa Umeme” in support of Mission 300 goals.
- **Strategic Partnerships:** Established collaborations with key partners including MECS, TATEDO, SESCOM, and appliance suppliers (UpEnergy, ECOA, Rasasa, and Smart Pika).
- **Resource Mobilization:** Secured grant funding through the TANESCO-MECS E-Cooking Project to support program implementation.
- **Innovative Financing Models:** Piloted on-bill financing to 500 customers and introduced salary-based payment arrangements for staff to accelerate adoption.
- **Policy Engagement:** Actively contributed to national clean cooking and energy policy frameworks.
- **Institutional Strengthening:** Established internal e-cooking champions to drive implementation across the organization.
- **Infrastructure Readiness:** Strengthened distribution networks to accommodate increased load from e-cooking adoption.



## 4. National Awareness and Sensitization Campaigns

- Flagship Campaign

Campaign Name:



**“Umeme ni Nishati Nafuu Zaidi Jikoni – Pika kwa Umeme”**

(Electricity is the most affordable energy for cooking – Cook with Power)

- Key Messages to consumers



Cost savings



Safety



Cleanliness



Convenience



Affordability



Accessibility nationwide

- Strategic Approach

- Awareness and education recognized as the foundation for large-scale adoption
- Mitigation of environmental degradation and deforestation
- Integration into national events and public platforms



## 5. Staff Adoption Program

- TANESCO designed and launched a subsidized eCooking appliance lending program for staff in collaboration with MECS.
- Repayment done through payroll deductions
- **4,520** Electric Pressure Cookers (**EPCs**) provided to staff up to the moment.

### Strategic Value

- Builds internal trust and credibility
- Accelerates market acceptance
- Staff act as:
  - Early adopters
  - Demonstration users
  - Community advocates



## 6. On-Bill Financing Pilot for Customers

(Konekt Umeme Pika kwa Umeme Campaign)

- Introduced during International Customer Service Week (Aimed to achieve two objectives from mission 300)
- Credit-based model for new customers to access EPCs

### Pilot Design

- 500 EPCs distributed across 32 regions (15 per region)
- Repayment through electricity bills
- Monthly repayment: TZS 12,500

### Objectives

- Reduce upfront cost barriers
- Test integration with utility billing systems
- Improve affordability and accessibility

### Customer Feedback & Key Recommendations from OBF

- Introduce flexible payment options (cash, full, instalments)
- Expand credit scheme to include induction cookers
- Establish automated notifications upon payment completion
- Allow customers to access more than one appliance
- Provide larger-capacity appliances for households with higher cooking demand
- Offer option for additional EPC inner pots (even at slightly higher cost)
- Extend eligibility to previously connected electricity customers



## 7. Advantages of On-Bill Financing (OBF) – for TANESCO/Tanzania Context

- Enables access to energy-efficient and clean technologies without high upfront costs
- Leverages TANESCO's nationwide power purchase (LUKU)system for secure and efficient repayment
- Reduces credit risk compared to traditional consumer lending
- Lowers electricity demand and peak load, improving grid reliability
- Improves customer affordability when repayments are offset by energy savings
- Supports national energy access, productivity, and climate goals
- Attracts private sector and development partner financing



## 8. Risks and Challenges of On-Bill Financing (OBF)

- Regulatory and legal constraints related to cost recovery through electricity bills
- Customer misunderstanding, with some consumers perceiving OBF as TANESCO shifting from its core mandate of electricity service provision to selling appliances
- Risk of non-payment, particularly among low-income customers, prepaid meter users, and in cases of customer death
- Financial exposure to TANESCO if repayment defaults are not adequately mitigated
- Need for strong consumer protection measures, including clear communication, transparent terms, and effective dispute resolution mechanisms



## 9. Training and Capacity Building

- Scaling requires both technology, knowledge and user capacity
- Training provided to staff and customers on:
  - Safe use of electric appliances
  - Energy-efficient cooking practices
  - Load management and responsible consumption

### Results

- Improved customer confidence
- Increased satisfaction
- Faster and more sustainable adoption



## 10. Lessons Learned and Scaling Pathway for eCooking Adoption

### Key Lessons

- **Awareness drives demand:**  
Demonstrations and education accelerate customer adoption.
- **Financing enables access:**  
Affordable payment models reduce upfront cost barriers.
- **Training sustains usage:**  
Continuous user and technician capacity building is essential.
- **Data informs decisions:**  
Reliable data supports planning, investment, and infrastructure readiness.
- **Partnerships unlock scale:**  
Collaboration with financiers, suppliers, and partners strengthens impact.



## 11. Scaling Pathway & TANESCO Priorities

- Secure funding to roll out on-bill financing nationwide
- Strengthen appliance supply chains and after-sales services
- Deepen partnerships with financial institutions, suppliers, and development partners
- Use data and smart technologies to guide policy and grid planning
- Continue distribution network reinforcement for growing demand
- Support policy and regulatory alignment for clean cooking growth (Introducing e-cooking tariffs for customers)



## 12. Conclusion

TANESCO's experience demonstrates that:

"Electric cooking can scale from pilot to national adoption in Tanzania and similar contexts, but funding, policy and capacity building are needed to deploy diverse approaches and achieve our clean cooking goals."



**ASANTE SANA**

