

Carbon Credits that count – High Integrity Methods and Projects

Case Study of BURN Manufacturing

www.burnstoves.com





# AFRICA'S LEADING COOKSTOVE COMPANY:

Top quality stoves for customers on all steps of the energy ladder

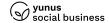
HQ in Kenya, with operations in ten African countries

New factory in Nigeria

Verified as best-in-class by:















Wood

Charcoal

LPG

Electric



20.7M

tons of CO<sub>2</sub> Reduced



tons of wood saved





4.4M+
stoves sold



\$819M in household savings

24M Lives impacted





## CARBON HAS TRANSFORMED BURN:

2013 - 2020:

1M stoves sold
One main product
Two countries

2020 - 2023:

3M more stoves sold Full suite of products Nine countries

#### **FUTURE:**

15M stoves by 2026 e-Cooking transition

2010

BURN is born!

2012

Biomass launch

2015

2014

2016

→ Wood launch

2018

2020

2022 Electric launch

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2026

Target 15M electric stoves

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2030

Target to have majority electric stoves distributed





## BURN produces the top performing biomass stoves in Africa

Independent validation ranks our stoves as the most fuel-efficient natural-draft biomass stoves globally



ECOA Wood



90 Net Promoter Score



2-3 tons CO<sub>2</sub> reduction p.a.



90% Usage Rate



ECOA Char



95 Net Promoter Score



4-5 tons  $CO_2$  reduction p.a.



90% Usage Rate



71% less wood than a 3-stone fire



51% Thermal efficiency<sup>1</sup>



7 – 10 Years Product lifespan



\$119 p.a. savings per household



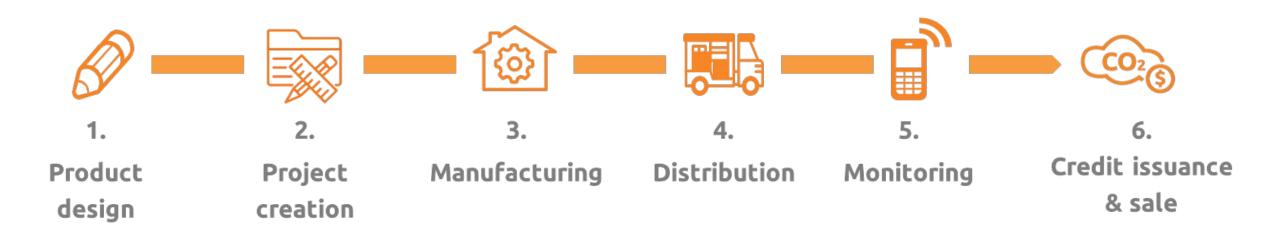
63% Thermal efficiency





#### BURN delivers the full value chain in Africa

This offers end to end oversight and quality control





#### BURN targets distribution to families who need stoves most

#### This approach means our customer profile and baseline survey match

## Feasibility study



BURN's team conducts nationwide and regional assessment of fuel mix, market size, and policy

This means we can select regions which would benefit from carbon the most

## Baseline study



Before a project starts, BURN conducts in-person KPTs to establish project baseline

This means we establish a robust ground-truthed baseline

## Agent prospecting



BURN teams pre-screen households to ensure carbon eligibility

This means we can target carbon subsidies to people who need them most

## Subsidised stove sale



At point of sale, our field agents confirm customers meet eligibility criteria

This means the right products get to the right customer – and end users match our baseline profile

## **Customer** validation



Our customer experience team makes welcome calls to all customers to educate and inform

Our customer care team validates stove has been received and is in use

## Carbon monitoring



BURN's carbon team monitors a sample of families to validate fuel savings



## BURN does robust in-household monitoring for every project

#### **Current State**

#### **Usage Surveys (Interview based)**

Integrating best practice, including:

- In-person surveys only
- Photographic evidence of every stove
- Stove serial number etched into stove
- GPS location
- Digital survey data collection



#### **Kitchen Performance Tests**

- 4-day field measurement per household
- Get real case measurement of Fuel consumption as opposed to self reported

#### **Future State**

#### **Stove Use Monitors (SUMs)**

- BURN is piloting used of SUMs on Biomass cookstoves
- Can be a positive move where actual stove usage events can be monitored and tracked
- Some considerations for project developers
- Data Accuracy/reliabilityData interpretation, logging and warehousing.
- Sensor durability Concerns around damage by end-user, external heat etc..
- Technical training Installation, Data Quality
   Algorithm use
- 5. Monitoring costs



#### **ECOA Induction Cooker**

Families receive carbon subsidized, PAYGO induction stoves for only \$20

Every stove has IoT sensor connected to a GSM chip

Sensors record real-time energy consumption (kwh)

Metered data feeds robust carbon methodology (MMECD)



