Initial target: Oromia Region

- Wood fuel: 77%
- Animal dung: 7%
- Agricultural Residue: 1%
- Kerosen: 1%
- Others: 0%

Rural and Urban distribution.
A three-pronged approach

Fuel-saving stoves

Charcoal briquettes

PAYG Solar Home Systems

Meeting demand: the private sector
Fuel-saving stoves: high demand
Fuel-saving stoves: high demand
Oromia Region, hub for production
RK Renew Energy PLC uses local resources to produce improved ceramic cook stoves. Women from rural and semi-urban areas are trained to build the ceramic stoves and to distribute and sell them in Ethiopian refugee camps.
## Fuel-saving stoves: target figures

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># FSS units planned</td>
<td>30,000</td>
<td>37,020</td>
<td>47,386</td>
<td>73,448</td>
<td>143,223</td>
<td>331,076</td>
</tr>
<tr>
<td>t/CO₂e reduction</td>
<td>36,833</td>
<td>45,452</td>
<td>58,179</td>
<td>90,177</td>
<td>175,845</td>
<td>406,485</td>
</tr>
</tbody>
</table>

Creating job opportunity for young women
Coffee in Ethiopia

- 400,000 ha
- 200,000 tons/year produced
- Major commodity (61%)
- Huge locally consumptn
- 100kg dried coffee cherries = 57kg residue
Coffee husks: discarded residue
Coffee husks: burned as waste
Coffee-husk briquetting

Final Product
# Coffee-husk briquettes: target figures

<table>
<thead>
<tr>
<th>Year</th>
<th>Daily manuf. capacity (kg)</th>
<th>Revenue (ETB)</th>
<th>Revenue (USD)</th>
<th>Net profit (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>696,960</td>
<td>4,181,760.00</td>
<td>199,131.43</td>
<td>59,739.43</td>
</tr>
<tr>
<td>Year 2</td>
<td>1,013,760</td>
<td>6,082,560.00</td>
<td>289,645.71</td>
<td>86,893.71</td>
</tr>
<tr>
<td>Year 3</td>
<td>1,584,000</td>
<td>9,504,000.00</td>
<td>452,571.43</td>
<td>135,771.43</td>
</tr>
</tbody>
</table>

**Investment needed:** $150,000
Ethiopia:

- Over 15 million off-grid households (6 million HH Oromia region)
- Spend over $8 per month (0.3-0.5 cents/day) on kerosene and mobile-phone charging, traveling an average of 3km every two or three days.
- A solar system worth $50 – $200 is the ideal solution, but up front costs are prohibitively high.
- RK Renew provides **SHS= $0.40** cents per day
Save and pay 30% upfront

The customer can still save and buy other energy products because the saving habit is there.

Takes a complete solar system

> one year the customer owns the product with additional 2 years warranty

The customer pays of >40$ cent per day for max one year

Solar home systems, for $0.40 cents
### Solar home systems: target figures

<table>
<thead>
<tr>
<th></th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned ass. &amp; sales</td>
<td>12,100</td>
<td>24,000</td>
<td>48,400</td>
<td>96,080</td>
<td>200,406</td>
</tr>
<tr>
<td>Total revenue (USD)</td>
<td>1,815,000</td>
<td>3,630,000</td>
<td>7,260,000</td>
<td>14,412,000</td>
<td>30,060,900</td>
</tr>
</tbody>
</table>

Total required start-up capital: $500,000
Challenges

- Machines
- Land leasing
- Awareness: End user
- Awareness: GOV
- Financing
- Foreign currency regulations
- Political Unrest
- Free giving NGO