

# FINANCIAL ANALYSIS (DRAFT)

## COMMUNITY KITCHENS – ELECTRIC STOVES vs. COOKED MEALS

### 1. IDENTIFIED PROS AND CONS FOR THE USE OF COMMUNAL KITCHENS – ELECTRIC STOVES.

Pros:	Cons:
Zero risk of open flame or gas leaks;	Slower to heat up and cool down than a gas stove;
Heat equally distributed;	More expensive to procure electricity than gas in the long run;
No flame - therefore no problem for flame stability in case of wind;	Uncommon in Afghanistan;
Smooth-top electric range are easier to clean;	
More stable for pots and pans than grates on gas stoves;	
Electric stoves are less expensive to purchase than gas stoves;	
Doesn't require ignition to start;	

### 2. FINANCIAL OVERVIEW

#### ➤ Community kitchens – Electric stoves

##### ➤ Cost for electricity

##### Stoves' capacity:

Provision of cooking stoves with 2 burners each. Each burner with a capacity of 1,500 Watts  
 = 3000 Watt x stove [= 3 KW]

**Number of sets to be provided:**

Considering a total of 50.000 people, and an average of 4 family members for family, we estimate around 12.500 families to cover. Each family will have access to a cooking stove (2 burners) for a maximum of 3 times per day (breakfast, lunch, dinner), in 3 shifts with other 2 families. Each cooking stove will then be used by 3 families throughout the day.

$12.500 : 3 = 4.167$  cooking stoves provided

**KW/H used per day:** 4.167 stoves will be running for a maximum of 9 hours/day and at a maximum of 3 KW/h.

$4.167 \times 3 \times 9 = 112.509$  KWh / day

**Electricity Price in Greece:**

The Annual Consumption in 2015 for industrial use (meaning between 500 MVh and 2000 MVh) is at 0.129 Euros / KWh = **ca. 0.13 Euro per KWh**

source:[http://ec.europa.eu/eurostat/statistics-](http://ec.europa.eu/eurostat/statistics-explained/images/a/ad/Halfyearly_electricity_prices_%28EUR_kWh%29.png)

[explained/images/a/ad/Halfyearly\\_electricity\\_prices\\_%28EUR\\_kWh%29.png](http://ec.europa.eu/eurostat/statistics-explained/images/a/ad/Halfyearly_electricity_prices_%28EUR_kWh%29.png)

**Daily Electricity cost:**

$112.509$  (needed KWh / day)  $\times 0.13 = 14.626,17$  Euros / day

**Monthly Electricity cost:**

$14.626,17 \times 30 = 438,785.10$  Euros / month

➤ **Cost for procuring Electric Stove:**

**One-off purchase of stoves:**

Estimate of 50 euros per stove. Expected life span 12 months.

$50 \times 4.167 = 208,350$  Euros (Total cost/12 months = **17,362.5 euros per month**)

➤ **Cost for Food**

**Cash for food.**

Estimate of an average of 350 Euros / month per family.

$350 \times 12.500$  families = **4,375,000 Euros / Month**

➤ **Cost for community kitchen construction**

**One-off installation of communal kitchen area:**

Estimate of 20 stoves for each communal kitchen module, covering 60 families per 3 shifts each (total of 9 hours)

$12.500$  (families) :  $60 = 208$  communal kitchens modules needed —> 220 communal kitchens country-wide

Estimated cost of 15.000 Euros to install 1 communal kitchen area (estimated life span of 12 months without major maintenance)

$15.000 \times 220 = 3.300.0000$

(Total cost/ 12 months = **275.000 euros per month**)

➤ **Cost for monthly standard maintenance of community kitchens**

Estimated 4% of kitchen cost on a monthly basis.

15,000 Euro x 4% x 220 kitchens = **132,000 Euro on a monthly basis**

➤ **Cost for electrical installations (transformers, cabling, etc.)**

Estimated cost for transformers, cabling, etc. EUR 5,000 per kitchen.

5,000 Euro x 220 kitchens = **1,100,000 EUR (Total cost/12 months = 91,666.66 Euro)**

**TOTAL MONTHLY COST TO RUN FOOD ASSISTANCE THROUGH COMMUNITY KITCHEN – ELECTRIC STOVES: EURO 5,329,814.26**

➤ **Cooked meals distribution**

➤ **Cost for cooked meals**

Depending of the quality of the food, according to DRC experience the total cost per day per person (3 meals) is varying from 4.70 to 6.50 Euro. DRC is considering as appropriate price 5 and ^ euros as reported below:

50.000 PoC x 6 Euros / day for all three meals = 300.000 x 30 = 9.000.000 Euros / month

50.000 PoC x 5 Euros / day for all three meals = 250.000 x 30 = 7.500.000 Euros / month

➤ **Cost for distribution of cooked meals**

Distribution costs can be estimated at 2% of the total on monthly basis (DRC estimation on current practice).

9,000,000 x 0.02 = 180,000 Euro per month

7,500,000 x 0.02 = 150,000 Euro

**TOTAL MONTHLY COST TO RUN FOOD ASSISTANCE THROUGH THE DISTRIBUTION OF COOKED MEALS**

50.000 PoC x 6 Euros / day for all three meals = (300.000 x 30) + 180,000 =

**9.180.000 Euros / month**

50.000 PoC x 5 Euros / day for all three meals = (250.000 x 30) + 150,000 =

**7.650.000 Euros / month**

### 3. COMPARATIVE TABLE

No.	Description	Cost EUR	Cost EUR	Cost EUR
<b>Communal kitchen – Electric stoves</b>				
1	Cost for electricity - electric stoves for 50,000 PoCs	438,785.10		
2	Monthly cost fo the stoves for 50,000 PoCs	17,362.50		
3	Monthly cost for communal kitchen construction for 50,000 PoCs	275,000.00		
4	Monthly cash for food cost	4,375,000.00		
5	Community kitchen maintainance	132,000.00		
6	Electric materials/installations	91,666.66		
<b>Cooked meals option 1</b>				
7	Cost of cooked meals – 5 Euro per person per day (3 meals)		7,500,000.00	
8	Distribution costs 2%		150,000.00	
<b>Cooked meals – Option 2</b>				
9	Cost of cooked meals – 6 Euro per person per day (3 meals)			9,000,000.00
10	Distribution costs 2%			180,000.00
<b>TOTAL EUR</b>		<b>5,329,814.26</b>	<b>7,650,000.00</b>	<b>9,180.000.00</b>
<b>% difference considering 100% the cheapest option</b>		<b>100%</b>	<b>143.53%</b>	<b>172.24%</b>
<b>Monthly cost per person (total population = 50,000) EUR</b>		<b>106.60</b>	<b>153.00</b>	<b>183.60</b>