# **PROJECT REPORT**

Of

# **ENERGY FOODS**

# PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Energy Foods making Unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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### PROJECT REPORT ON 'ENERGY FOODS'



#### PRODUCT AND APPLICATIONS

Health awareness is fast growing and people are taking to such energy supplements to overcome ageing, tiredness, fatigue and general breakdown of the system. Various supplements are available in the market to lower fats increase stamina etc. People are very conscious of Cholesterol level in blood and avoid fatty foods. They are very selective of their diet and there is marked preference for low calorie high protein food supplements. The energy foods available in market are costly and beyond the reach of common man. Children are yet another group for cheap energy foods.

The technology for such foods has been developed by CFTRI.

India's rural population is subject to three common forms of nutritional deprivation: 1. Inadequacy of food intake among the poorer segment leading to calorie deficiency 2. The extra nutritional need of infants and preschool children 3. Deficiency of specific micronutrients such as Vitamin A and iron

Energy food is prepared from easily available ingredients like wheat, gram dal, jiggery, edible ground nut cake, minerals and vitamins. It is a ready to eat food item and does not require extensive cooking. Depending upon individuals tastes some milk or water can be added. It can also be used with other material while making food items like halwa, chapatti etc.

#### MARKET POTENTIAL

Urban market is targeted by the costly variety of energy foods which are generally beyond the reach of semi urban and rural population. A large market exists for such products in rural and semi urban areas. With greater health awareness and contamination of raw vegetables due to pesticides and other chemical fertilizers people prefer diet foods. Thus easy availability at reasonable price provides a large market with the vast rural and semi urban population.

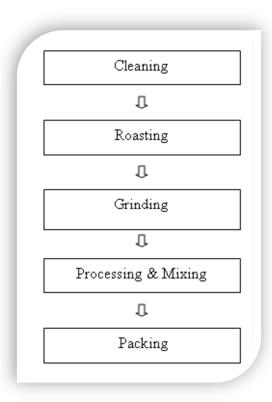
#### MANUFACTURING PROCESS & KNOW HOW

The process of manufacturing is not very complicated. Cleaned wheat is roasted in a roaster bin to brown colour and then ground in a hammer mill. Similarly gram dal and edible ground nut cake are also roasted and ground. Next jiggery is mixed with calcium carbonate and wheat flour and processed in multi mill to obtain coarse flour. Finally are the ingredients along with pre-mixed minerals and vitamins are thoroughly mixed and packed. A typical mix could be 60% wheat flour, 10% gram dal, 10% edible ground nut cake, 15-16% jiggery and balance calcium carbonate and vitamins. Quality control is a must.

The process flow chart is as under

Know how is available with Central Government research Laboratories. The machinery is all indigenously available.

The production capacity envisaged is 200 tonnes per annum on two shift basis for 330 days per year.



#### **PLANT AND MACHINERY**

		Rs in Lac
Electrically operated roaster	1	2.50
Hammer Mill	1	0.82
Multi mill.	1	0.65
Homogeniser	1	0.95
Sieves, SS utensils	LS	0.50
Weighing scales	1	0.20
Installation/Electrification		.38
Total		6.00

The total cost of machinery is estimated to be Rs.6.00 lakhs.

The unit will also require miscellaneous assets such as furniture, fixtures, storage facilities etc.

The total requirement of power shall be 30 HP, the unit will need 1000 lits of water daily.

#### RAW MATERIAL AND PACKING MATERIAL

The basic raw materials for the unit are good quality wheat, gram dal, edible ground nut cake, jiggery are all available locally. Major requirement is that of wheat and for which advance bulk procurement shall have to be made. Printed polythene bags and packing cartons are the basic packing material required.

On an average the raw material cost has been estimated to be Rs.180 lakhs at 100% capacity utilization.

#### LAND AND BUILDING

For smooth operation of the unit, it will require 250 sq. mts of open land and a built up area of 150 sq. Mts. The building is taken on rent .

FSSAI LICENSE: FSSAI License is issued by the Food Safety and Standards Authority of India (FSSAI), Ministry of Family Health & Welfare, Government of India. Application to commence a food business must be made to the FSSAI in the prescribed format. Based on the application and supporting documents, FSSAI will accord approval. The Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations 2011 introduced to improve the hygiene and quality of food has brought about tremendous changes in the food industry. As per the Act, no person shall commence or carry on any food business except under a FSSAI license or FSSAI registration. Therefore, any food manufacturing or processing or packaging or distributing entity is now required to obtain a FSSAI License or Registration.

#### PROJECT AT A GLANCE

XXXXXXX 1 Name of the Entreprenuer xxxxxxx 2 Constitution (legal Status)

3 Father's/Spouce's Name XXXXXXXX 4 Unit Address xxxxxxx

Taluk/Block:

xxxxx District: Pin: XXXXX

State:

XXXXX E-Mail Mobile

5 Product and By Product **Energy Foods** 

6 Name of the project / business activity propose  ${\bf Energy\ Foods}$ 

7 Cost of Project Rs22.20lac

8 Means of Finance

Rs.9.21 Lacs

- As per Project Eligibility Rs.2.22 Lacs KVIC Margin Money Own Capital

Working Capital Rs.10.77 Lacs

9 Debt Service Coverage Ratio 4.49

10 Pay Back Period 5 Years

11 Project Implementation Period 6 Months

12 Break Even Point 28%

13 Employment 6 Persons

14 Power Requirement 30.00 HP

15 Major Raw materials : , gram dal, edible ground nut cake, jaggery

16 Estimated Annual Sales Turnover 129.96 Lacs

16 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2000 Sq Ft)	3.00
Plant & Machinery	6.00
Furniture & Fixtures	0.73
Pre-operative Expenses	0.50
Working Capital Requirement	11.97
Total	22.20

#### MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.22
Term Loan	9.21
Workign Capital Finance	10.77
Total	22.20

General 10%

Special 5%

Beneficiary's Margin Money (% of Project Cost)

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Electrically operated roaster	1.00	250000.00	250000.00
Hammer Mill	1.00	82000.00	82000.00
Multi mill.	1.00	65000.00	65000.00
Homogeniser	1.00	95,000.00	95,000.00
Sieves, SS utensils	1.00	50,000.00	50,000.00
Weighing scales	1.00	20,000.00	20,000.00
Installation /electrification			38,000.00
Total			600,000.00

## PROJECTED CASH FLOW STATEMENT

IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
າກ				
	10.40	12.05	15.61	18.08
				0.72
	1.10	0.90	0.63	0.72
	-	-	-	-
	0.90	0.90	0.90	0.90
				0.90
0.30	0.04	0.04	0.04	0.03
37.78	12.44	14.94	17.38	19.74
9.73	_	-	_	_
10.87	- 1.55	1.33	1.33	1.33
6.50	1.43	1.14	1.14	1.14
2.50	0.25	0.28	0.30	0.33
_	2.30	2.30	2.30	2.25
-	1.04	2.61	3.12	3.62
29.60	3.47	7.66	8.20	8.67
-	8.18	17.15	24.44	33.62
8.18	8.97	7.28	9.18	11.07
8.18	17.15	24.44	33,62	44.69
	2.22 8.59 1.24 10.77 9.21 5.40 0.36 37.78 9.73 10.87 6.50 2.50	2.22 - 8.59 10.40 1.24 1.10 10.77 - 9.21 - 5.40 0.90 0.36 0.04  37.78 12.44  9.73 - 10.87 - 1.55 6.50 1.43 2.50 0.25 - 2.30 - 1.04  29.60 3.47 - 8.18  8.18 8.97	2.22       -         8.59       10.40       13.05         1.24       1.10       0.96         10.77       -       -         9.21       -       -         5.40       0.90       0.90         0.36       0.04       0.04         37.78       12.44       14.94         9.73       -       -         10.87       -       1.55       1.33         6.50       1.43       1.14         2.50       0.25       0.28         -       2.30       2.30         -       1.04       2.61         29.60       3.47       7.66         -       8.18       17.15         8.18       8.97       7.28	2.22       -         8.59       10.40       13.05       15.61         1.24       1.10       0.96       0.83         10.77       -       -       -         9.21       -       -       -         5.40       0.90       0.90       0.90         0.36       0.04       0.04       0.04         37.78       12.44       14.94       17.38         9.73       -       -       -         10.87       -       1.55       1.33       1.33         6.50       1.43       1.14       1.14         2.50       0.25       0.28       0.30         -       2.30       2.30       2.30         -       1.04       2.61       3.12         29.60       3.47       7.66       8.20         -       8.18       17.15       24.44         8.18       8.97       7.28       9.18

PROJECTED BALANCE SHE
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PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Capital Account	2.22	2.22	2.22	2.22	2.22
Retained Profit	8.59	17.95	28.38	40.87	55.33
Term Loan	9.21	6.91	4.60	2.30	0.05
Cash Credit	10.77	10.77	10.77	10.77	10.77
Sundry Creditors	5.40	6.30	7.20	8.10	9.00
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
	36.55	44.54	53.61	64.74	77.90
TOTAL:	30.33				
APPLICATION OF FUND					
<u>APPLICATION OF FUND</u> Fixed Assets (Gross)	9.73	9.73	9.73	9.73	9.73
APPLICATION OF FUND  Fixed Assets (Gross)  Gross Dep.	9.73 1.24	9.73 2.34	3.30	4.12	4.84
<u>APPLICATION OF FUND</u> Fixed Assets (Gross)	9.73	9.73			
APPLICATION OF FUND  Fixed Assets (Gross) Gross Dep.	9.73 1.24	9.73 2.34	3.30	4.12	4.84
APPLICATION OF FUND  Fixed Assets (Gross) Gross Dep. Net Fixed Assets  Current Assets Sundry Debtors	9.73 1.24	9.73 2.34	3.30	4.12	4.84
APPLICATION OF FUND  Fixed Assets (Gross) Gross Dep. Net Fixed Assets  Current Assets	9.73 1.24 8.49	9.73 2.34 7.39	3.30 6.43	4.12 5.61	4.84 4.89 11.34
APPLICATION OF FUND  Fixed Assets (Gross) Gross Dep. Net Fixed Assets  Current Assets Sundry Debtors	9.73 1.24 8.49 6.50	9.73 2.34 7.39	3.30 6.43 9.06	4.12 5.61 10.20	4.84
APPLICATION OF FUND  Fixed Assets (Gross) Gross Dep. Net Fixed Assets  Current Assets Sundry Debtors Stock in Hand	9.73 1.24 8.49 6.50 10.87	9.73 2.34 7.39 7.92 9.32	3.30 6.43 9.06 10.66	4.12 5.61 10.20 11.99	4.84 4.89 11.34 13.32

## PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) CATEC					
A) SALES Gross Sale	120.06	150.47	101.20	204.06	226.86
Gross Sale	129.96	158.46	181.26	204.06	226.86
Total (A)	129.96	158.46	181.26	204.06	226.86
B) COST OF SALES					
Raw Mateiral Consumed	108.00	126.00	144.00	162.00	180.00
Elecricity Expenses	4.73	5.52	6.31	7.10	7.88
Repair & Maintenance	-	1.58	1.81	2.04	2.27
Labour & Wages	3.43	3.78	4.15	4.57	5.02
Depriciation	1.24	1.10	0.96	0.83	0.72
Consumables and Other Expense	2.60	3.17	3.63	4.08	4.54
Cost of Production	120.00	141.15	160.85	180.61	200.43
Add: Opening Stock/WIP	-	5.47	6.38	7.30	8.21
Less: Closing Stock/WIP	5.47	6.38	7.30	8.21	9.12
Cost of Sales (B)	114.53	140.24	159.94	179.70	199.52
C) GROSS PROFIT (A-B)	15.43	18.22	21.32	24.36	27.34
	12%	11%	<b>12</b> %	12%	12%
D) Bank Interest (Term Loan )	0.79	0.96	0.69	0.43	0.17
Bank Interest ( C.C. Limit )	1.08	1.08	1.08	1.08	1.08
E) Salary to Staff	2.38	2.61	2.87	3.16	3.48
F) Selling & Adm Expenses Exp.	2.60	3.17	3.63	4.08	4.54
-					
TOTAL (D+E)	6.85	7.82	8.27	8.75	9.26
H) NET PROFIT	8.59	10.40	13.05	15.61	18.08
I) Taxation	-	1.04	2.61	3.12	3.62
J) PROFIT (After Tax)	8.59	9.36	10.44	12.49	14.46

## COMPUTATION OF MANUFACTURING OF ENERGY FOOD

Items to be Manufactured

**ENERGY FOOD** 

Manufacturing Capacity per day	-	1.00	MT
	-		
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		300.00	MT
Year		Capacity	MT
		Utilisation	
			Less wastage 5%
IST YEAR	180	60%	171
IIND YEAR	210	70%	200
IIIRD YEAR	240	80%	228
IVTH YEAR	270	90%	257
VTH YEAR	300	100%	285

#### **COMPUTATION OF RAW MATERIAL**

Item Name		Quantity of	Recovery	Unit Rate of	Total Cost
		Raw Material		/MT	Per Annum (100%)
		MT			
wheat, gram dal, edible ground nut cake, jaggery	100%	300.00	100%	60,000.00	18,000,000.00
			Total (Rounded	off in lacs)	18,000,000.00

Annual Consumption cost (In Lacs) 180.00

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)	
IST YEAR	60%	108.00	
IIND YEAR	70%	126.00	
IIIRD YEAR	80%	144.00	
IVTH YEAR	90%	162.00	
VTH YEAR	100%	180.00	

## COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(15 Days requirement)	5.47	6.38	7.30	8.21	9.12
Raw Material					
(15 Days requirement)	5.40	2.94	3.36	3.78	4.20
Closing Stock	10.87	9.32	10.66	11.99	13.32

## COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars		Total
		Amount
Stock in Hand		10.87
Sundry Debtors		6.50
	Total	17.37
Sundry Creditors		5.40
Working Capital Requirement		11.97
Margin		1.20
Working Capital Finance		10.77

# BREAK UP OF LABOUR

Particulars	Wages	No of	Total
	Per Month	Employees	Salary
Skilled Worker	8,000.00	2	16,000.00
Semi skilled Worker	5,000.00	2	10,000.00
			26,000.00
Add: 10% Fringe Benefit			2,600.00
Total Labour Cost Per Month			28,600.00
Total Labour Cost for the year (In Rs. Lakhs)		4	3.43

## BREAK UP OF SALARY

Particulars	Salary	No of	Total
	Per Month	Employees	Salary
Accountant	8,000.00	1	8,000.00
Sales Representative	10,000.00	1	10,000.00
Total Salary Per Month			18,000.00
Add: 10% Fringe Benefit			1,800.00
Total Salary for the month			19,800.00
Total Salary for the year (In Rs. Lakhs)		2	2.38

# **COMPUTATION OF DEPRECIATION**

Description	Land	Building/shed	Plant &	Furniture	TOTAL
			Machinery		
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	3.00	6.00	0.73	9.73
	-	3.00	6.00	0.73	9.73
Less: Depreciation	-	0.30	0.90	0.04	1.24
WDV at end of Ist year	-	2.70	5.10	0.69	8.49
Additions During The Year	-	-	1	-	-
	-	2.70	5.10	0.69	8.49
Less: Depreciation	-	0.27	0.77	0.07	1.10
WDV at end of IInd Year	-	2.43	4.34	0.62	7.39
Additions During The Year	-	-	-	-	-
	-	2.43	4.34	0.62	7.39
Less: Depreciation	-	0.24	0.65	0.06	0.96
WDV at end of IIIrd year	-	2.19	3.68	0.56	6.43
Additions During The Year	-	-		-	-
	-	2.19	3.68	0.56	6.43
Less: Depreciation	-	0.22	0.55	0.06	0.83
WDV at end of IV year	-	1.97	3.13	0.51	5.61
Additions During The Year	-	-	-	-	-
	-	1.97	3.13	0.51	5.61
Less: Depreciation	-	0.20	0.47	0.05	0.72
WDV at end of Vth year	-	1.77	2.66	0.46	4.89

REPAYM	ENT SCHEDU	ILE OF TERM LOA	N

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	9.21	9.21	-	-	9.21
	Iind Quarter	9.21	-	9.21	0.26	-	9.21
	IIIrd Quarter	9.21	-	9.21	0.26	-	9.21
	Ivth Quarter	9.21	-	9.21	0.26	-	9.21
					0.79	-	
IIND YEAR	Opening Balance						
	Ist Quarter	9.21	-	9.21	0.26	0.58	8.63
	Iind Quarter	8.63	-	8.63	0.25	0.58	8.06
	IIIrd Quarter	8.06	-	8.06	0.23	0.58	7.48
	Ivth Quarter	7.48		7.48	0.22	0.58	6.91
					0.96	2.30	
IIIRD YEAR	Opening Balance						
	Ist Quarter	6.91	-	6.91	0.20	0.58	6.33
	Iind Quarter	6.33	-	6.33	0.18	0.58	5.75
	IIIrd Quarter	5.75	-	5.75	0.17	0.58	5.18
	Ivth Quarter	5.18		5.18	0.15	0.58	4.60
					0.69	2.30	
IVTH YEAR	Opening Balance						
	Ist Quarter	4.60	-	4.60	0.13	0.58	4.03
	Iind Quarter	4.03	-	4.03	0.12	0.58	3.45
	IIIrd Quarter	3.45	-	3.45	0.10	0.58	2.88
	Ivth Quarter	2.88		2.88	0.08	0.58	2.30
					0.43	2.30	
VTH YEAR	Opening Balance						
	Ist Quarter	2.30	-	2.30	0.07	0.58	1.73
	Iind Quarter	1.73	-	1.73	0.05	0.58	1.15
	IIIrd Quarter	1.15	-	1.15	0.03	0.55	0.60
	Ivth Quarter	0.60		0.60	0.02	0.55	0.05
					0.17	2.25	

# CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
CASH ACCRUALS	9.82	10.46	11.39	13.31	15.18
Interest on Term Loan	0.79	0.96	0.69	0.43	0.17
Total	10.62	11.42	12.09	13.74	15.35
REPAYMENT					
Instalment of Term Loan	2.30	2.30	2.30	2.25	2.25
Interest on Term Loan	0.79	0.96	0.69	0.43	0.17
Total	3.10	3.26	3.00	2.68	2.42
DEBT SERVICE COVERAGE R	3.43	3.50	4.03	5.13	6.35
AVERAGE D.S.C.R.			4.49		

articulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Pp Stock	-	9	10	11	
roduction	171	200	228	257	2
	171	208	238	268	2
ess : Closing Stock	9	10	11	13	
Jet Sale	162	198	227	255	2
ale Price per MT	80,000.00	80,000.00	80,000.00	80,000.00	80,000
ale (in Lacs)	129.96	158.46	181.26	204.06	226

#### COMPUTATION OF ELECTRICITY

COMPUTATION OF ELECTRICITY	Г	1	
(A) POWER CONNECTION			
Total Working Hour per day	Hours	8	
Electric Load Required	HP	30	
Load Factor		0.7460	
Electricity Charges	per unit	8.00	
Total Working Days		300	
Electricity Charges (8 Hrs Per day)			429,696.00
Add : Minimim Charges (@ 10%)			
(B) D.G. SET			
No. of Working Days		300	days
No of Working Hours		2	Hour per day
Total no of Hour		600	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		4,800	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		3.12	
Add : Lube Cost @15%		0.47	
Total		3.59	
Total cost of Power & Fuel at 100%			7.88
Year	Capacity		Amount
Teal	Capacity		(in Lacs)
			(III Lacs)
IST YEAR	60%		4.73
IIND YEAR	70%		5.52
IIIRD YEAR	80%		6.31
IVTH YEAR	90%		7.10
VTH YEAR	100%		7.88

#### **BREAK EVEN POINT ANALYSIS**

Year	I	II	III	IV	V
Net Sales & Other Income	129.96	158.46	181.26	204.06	226.86
Less : Op. WIP Goods	-	5.47	6.38	7.30	8.21
Add : Cl. WIP Goods	5.47	6.38	7.30	8.21	9.12
Total Sales	135.43	159.37	182.17	204.97	227.77
Variable & Semi Variable Exp.					
Raw Material & Tax	108.00	126.00	144.00	162.00	180.00
Electricity Exp/Coal Consumption at 85%	4.02	4.69	5.36	6.03	6.70
Manufacturing Expenses 80%	2.08	3.80	4.35	4.90	5.44
Wages & Salary at 60%	3.48	3.83	4.22	4.64	5.10
Selling & adminstrative Expenses 80%	2.08	2.54	2.90	3.26	3.63
Intt. On Working Capital Loan	1.08	1.08	1.08	1.08	1.08
Total Variable & Semi Variable Exp	120.74	141.94	161.91	181.91	201.96
Contribution	14.69	17.43	20.27	23.06	25.82
Fixed & Semi Fixed Expenses					
•					
Manufacturing Expenses 20%	0.52	0.95	1.09	1.22	1.36
Electricity Exp/Coal Consumption at 15%	0.71	0.83	0.95	1.06	1.18
Wages & Salary at 40%	2.32	2.56	2.81	3.09	3.40
Interest on Term Loan	0.79	0.96	0.69	0.43	0.17
Depreciation	1.24	1.10	0.96	0.83	0.72
Selling & adminstrative Expenses 20%	0.52	0.63	0.73	0.82	0.91
Total Fixed Expenses	6.10	7.03	7.22	7.45	7.74
Capacity Utilization	60%	70%	80%	90%	100%
OPERATING PROFIT	8.59	10.40	13.05	15.61	18.08
BREAK EVEN POINT	25%	28%	29%	29%	30%
BREAK EVEN SALES	56.27	64.29	64.90		68.26



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