***PROJECT PROFILE***
***ON***
***PLUMBING, REPAIR & SERVICING OF ELECTRICAL APPLIANCES***

| | | |
|---|---|---|
| Product Name | : | ***PLUMBING & SERVICING OF ELECTRICAL Appliances*** |
| PRODUCT CODE | : | --- |
| QUALITY AND STANDARDS | : | As per state electricity board regulations |
| PRODUCTION CAPACITY | : | Service Oriented Industry |
| | | Turn over : Rs. 16,20,000/- |
| | | Total Capital Investment : Rs. 2,72,900 /- |
| | | Profit on sales : 9.69 % |
| | | Rate of Return : 57.50 % |
| | | B.E.P : 79.55 % |
| YEAR OF PREPARATION | : | June 2020 |

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## 1. INTRODUCTION:

In almost every home during construction, there is need for plumbing for water pipe line and electrical wiring to utilise the electrical appliances such as fan, light, water heater, air conditioner, food mixer, wet grinder, etc., use throughout the day to provide us the comfort and easiness of life that we deserve.

We are really grateful to these appliances which are necessity of every home and most of the appliances and equipments are placed at unique place. These electrical appliances are electrified through permanent wiring and plumbing at the time of installation and during change in venue this service also required. These services cannot be offered by the manufacturers.

Similarly these electrical appliances do need periodic servicing, maintenance and repair actively. Though there are a number of authorized repair & servicing centres, provided by the authorized dealers network but still there is wide spread need of the repair & servicing centres to cater the need of repair and servicing activity for these appliances specially in semi-urban and rural areas as immediate measure.

The breakdown of electrical domestic devices is inevitable as machines after long run tend to break down. At times they break down early due to misuse or over use.

## 2. MARKET POTENTIAL:

This will be a service-oriented industry to cater to the needs of the repair & servicing of ElectricalAppliances. There is hardly any household which does not possess these items. In course of time,these items/ appliances need periodic servicing and repair requirement, therefore, there is atremendous scope for the growth of these repair & servicing centres, specially in semi-urban andRural Areas, which can be undertaken by the educated-unemployed youths of the area with a littleskill development without much capital requirement.

Similarly water pumps need erection of pipe line and maintenance of foot valve, pump and motor, this service cannot be offered by pump manufacturer. This needs services by plumbers.

**Basis and Presumptions**

i) The basis for calculation of production capacity has been taken on single shift basis on 75% efficiency.

ii) The maximum capacity utilization on single shift basis for 300 days a year. During first year and second year of operations the capacity utilization is 60% and 80% respectively. The unit is expected to achieve full capacity utilization from the third year onwards.

iii) The salaries and wages, cost of raw materials, utilities, rents, etc. are based on the prevailing rates in and around Chennai. These cost factors are likely to vary with time and location.

iv) Interest on term loan and working capital loan has been taken at the rate of 14% on an average. This rate may vary depending upon the policy of the financialinstitutions/agencies from time to time.

v) The cost of machinery and equipments refer to a particular make / model and prices are approximate.

vi) The break-even point percentage indicated is of full capacity utilization.

vii) The project preparation cost etc. whenever required could be considered under pre-operativeexpenses.

viii) The essential production machinery and test equipment required for the project have been indicated. The unit may also utilize common test facilities available at Electronics Test and Development Centres

**Implementation Schedule**

The major activities in the implementation of the project has been listed and the average time for implementation of the project is estimated at 1 month after financial sanction:

| Sl. | Activity | Period No. (In Months) |
|---|---|---|
| 1. | Preparation of project report | } |
| 2. | Registration and other formalities | } 1 month |
| 3. | Sanction of loan by financial institutions | } |
| 4. | Plant and Machinery: | |
| | a) Placement of orders | } |
| | b) Procurement | } 1 month |
| | c) Power connection/ Electrification | } |
| | d) Installation/Erection of machinery | } |
| 5. | Preoperative / marketing activity Including trial production | 1 month |

Notes: Many of the above activities shall be initiated concurrently.

**TECHNICAL ASPECTS:**

**1. Process of Servicing**

Basically the process of repairing and servicing of Electrical Appliances would be servicing innature. The periodic servicing of the appliances can be carried out at a time interval as and whenthe customer brings the Appliances for servicing. The Appliances *i.e.* electric fans, mixer, Geysers,Iron etc. which is completely de-assembled after overhauling and replacing worn out parts, changesof ball bearings, etc. and lubrication the appliance is re-assembled and tested, On the other hand,under repairing activity, after testing and fault diagnosing, the repair activity can be carried out byrectifications or replacement of worn out/defective item, etc. Apart from these, the repair works are carried at customer location, either house or any commercial building or industry.

**2. QUALITY STANDARDS**

As per customer's requirement

**3. PRODUCTION CAPACITY PER ANNUM:**

Plumber and helper will attend the pump repair, the charges are Rs. 1750 /- per day. If plumbing of water pipe line erecting will be on length of water line, approximately per day earning for plumber and helper is Rs. 2000 to 2500 /- per day is considered for calculations.

Electrical repair &servicing at site will be attended to rectify the appliances, the charges are Rs. 100 to 300/- per visit based on the appliances, in a day one electrician will visit 6 to 8 sites, earn Rs. 1200 at average per day per electrician is considered in this project.

Overhauling Electrical Appliances will be done at the Electrical repair shop, each repair will be from Rs. 200 to 500 as per nature of repair at appliances, at an average of Rs. 250 /- @ 5 repair and testing per day will be done to shop is considered in this project.

| | | |
|---|---|---|
| Plumbing | : Rs. 1,750 per day x 25 x 12 | = 5,25,000 |
| Electrical repair at site (2 electrician) | : Rs. 1,200 x 2 x 25 x 12 | = 7,20,000 |
| Overhauling Electrical Appliances | : Rs. 250 x 5 x25 x 12 | = 3,75,000 |
| | | --- |
| Turn over | : | = 16,20,000 |
| | | --- |

60 % of the service centre is utilised, remaining period the work at site.

**Services Value:** Rs. 16,20,000/-

**4. MOTIVE POWER:**

At Service Centre: 5 KVA. Most of the equipments operated at site.

**5. POLLUTION CONTROL:**

The Government accords utmost importance to control environmental pollution. The micro entrepreneurhave an environmental friendly attitude and adopt pollution control measuresby process modification and technology substitution. However this units is non polluting.

**6. Energy Conservation:**

With the growing energy needs and shortage coupled with rising energy cost, a greater thrust inenergy efficiency in industrial sector has been given by the Govt. of India since 1980s. The EnergyConservation Act 2001 has been enacted on 18th August, 2001, which provides for efficient useof energy, its conservation & capacity building of Bureau of Energy Efficiency created under theAct.

The following steps may help for conservation of electrical energy.

i) Customers are motivated to adoptenergy conserving technologies.

ii) Energy efficient process/machineries and equipments are utilised.

iii) Periodical maintenance of machineries and equipments are carried out.

iv) Proper selection and layout of lighting system, timely switching On-Off of the lights, switch of equipments when not in useetc., are made practise in unit and at site.

**FINANCIAL ASPECTS**

**A. Fixed Capital**

**(i) Land and Building** (Rs.) Rented building with a built up area of 1000 sq.ft. for office and workshop shed- Rented @ Rs. 10,000 per month.

**(ii) Machinery and Equipments**

| Sl. | Description | Rate **(Rs.)** | Qty. | Amount **(Rs.)** |
|---|---|---|---|---|
| 1 | Hand Drilling Machine with hammer | 12,500 | 1 | 12,500 |
| 2. | Hand Drilling Machine without hammer | 4,500 | 1 | 4,500 |
| 3. | Wall Cutting Machine | 20,000 | 1 | 20,000 |
| 4. | Hand Grinding Machine To cut Hilem Ply wood & PVC | 3,500 | 1 | 3,500 |
| 5 | Bench Vice & table | 5,000 | 1 | 5,000 |
| 6 | Megger | 2,000 | 1 | 2,000 |
| 7 | Digital Multimeter | 9,500 | 1 | 9,500 |
| 8 | Clamp meter | 8,750 | 1 | 8,750 |
| 9 | Test Panel with V-I meters Fabricated with loading rheostat - 25A | 25,000 | 1 | 25,000 |
| 10 | Water pipe line leak tester | 30,000 | fabricated | 30,000 |
| | | | ***Total machineries*** | ***1,20,750*** |
| 11 | Hand Tools Spanner set DE & Ring, Pipe wrench, Screw spanner, Cutting plier, Nose Plier, Hammer, pocker, etc | 5000 | 3 Sets | 15,000 |
| | | | ***Total Tools*** | ***15,000*** |
| 12 | Working Tables with chair | 3,500 | 3 sets | 10,500 |
| 13 | Almirah | 9,500 | 1 | 9,500 |
| | | | ***Total Furniture's*** | ***20,000*** |
| 14 | Electrification & Installation | 5,000 | -- | 5,000 |
| 15 | Pre-Operative Expenses | 5,000 | Lump sum | 5,000 |
| | | | ***Total Fixed Capital*** | ***1,65,750*** |

**B. Working Capital (per month)**

(i) Personnel

| Sl. | Designation | Salary **(Rs.)** | Strength | Amount **(Rs.)** |
|---|---|---|---|---|
| 1 | Manager / Entrepreneur | 20,000 | 1 | 20,000 |
| 2 | Skilled workers | 15,000 | 3 | 45,000 |
| 2 | Helper | 10,000 | 1 | 10,000 |
| | | | Perquisite @ 15% of salaries | 11,250 |
| | | | Total | 86,250 |

**(ii) Raw Material (per month)**

| Sl. | Description | Rate **(Rs.)** | Qty | Amount **(Rs.)** |
|---|---|---|---|---|
| 1. | Plumbing spares | 2000 | L.S | 2,000 |
| 2. | Screws & minor parts | 3000 | L.S | 3,000 |
| | | | | 5,000 |

**(iii) Utilities (per month)**

| Sl. | Description | Rate **(Rs.)** | Qty | Amount **(Rs.)** |
|---|---|---|---|---|
| 1 | Electricity Charges | 6 /- per unit | 400 unit | 2,400 |
| 2 | Water | 40 per can | 25 | 1,000 |
| | TOTAL | | | 3,400 |

**(iv) Other Contingent Expenses (per month)**

| Sl. | Item Description | Rate **(Rs.)** | Qty | Amount **(Rs.)** |
|---|---|---|---|---|
| 1 | Rent | 10,000 | Agreement | 10,000 |
| 2 | Postage, stationery and telephone | 500 | Approx. | 500 |
| 3 | Transportation | 500 | Approx. | 500 |
| 4 | Insurance | 1000 | Approx. | 1,000 |
| 5 | Miscellaneous Expenses | 500 | Approx. | 500 |
| | | | TOTAL | 12,500 |

**(v) Total Recurring Expenditure**

| | | | |
|---|---|---|---|
| (i) | Personnel | | 86,250 |
| (ii) | Raw Material | Lump sum | 5,000 |
| (iii) | Utilities | | 3,400 |
| (iv) | Other Contingent Expenses | | 12,500 |
| | | Total | 1,07,150 |

**(vi) Working Capital (for 1 month) = 1,07,150**

This unit is service oriented, working capital for 1 month is sufficient.

**C. Total Capital Investment :**

| | |
|---|---|
| a) Fixed Capital | 1,65,750 |
| b) Working Capital | 1,07,150 |
| Total | 2,72,900 |

**Financial Analysis**

| (1) Total Cost of Production (per year) | | (Rs.) |
|---|---|---|
| Total recurring expenditure | | 12,85,800 |
| Rent of building | | 1,20,000 |
| Depreciation on machinery and equipment | @ 10% | 12,075 |
| Depreciation on Tools | @ 20% | 3,000 |
| Depreciation on office equipment, | @ 20% | 4,000 |
| Interest on Capital Investment | @ 14% of 2,72,900 | 38,206 |
| Total | | 14,63,081 |

**(2) Turn over per Annum (Rs.)**

| | | | |
|---|---|---|---|
| Plumbing | : | Rs. 1,750 per day x 25 x 12 | = 5,25,000 |
| Electrical repair at site (2 electrician) | : | Rs. 1,200 x 2 x 25 x 12 | = 7,20,000 |
| Overhauling Electrical Appliances | : | Rs. 250 x 5 x25 x 12 | = 3,75,000 |
| | | | --- |
| Turn over | : | | = 16,20,000 |
| | | | --- |

(3) **Net Profit** (per year) (Before Income Tax)

= Turnover- Total Cost of Production
= Rs. 16,20,000 - 14,63,081= Rs. 1,56,919 /-

(4) **Net Profit Ratio** = Net Profit per year x 100 / Turnover per annum = 1,56,919 x 100 / 16,20,000 = **9.69%**

(5) **Rate of Return** = Net profit per year x 100 / Total investment = 1,56,919 x 100 / 2,72,900 = **57.50%**

(6) Break-even Point (% of Total Production Envisaged)

| Fixed Cost | (Rs.) |
|---|---|
| Depreciation on Machinery and equipment, | 12,075 |
| Tools, office equipment | 7,000 |
| Rent on Building, insurance | 1,32,000 |
| Interest on total investment | 38,206 |
| 40% of salary and wages | 4,14,000 |
| 40% of other contingent expenses (Excluding Rent and Insurance) | 7,200 |
| Total | 6,10,481 |

**B.E.P.** = Fixed Cost x 100 / Fixed Cost + Profit

= 6,10,481 x 100 / 6,10,481 + 1,56,919 = 6,10,48,100 / 7,67,400 = **79.55 %**

**Additional Information**

a. The Project Profile may be modified/tailored to suit the individual entrepreneurship qualities/capacity, production programme and also to suit the local characteristics, wherever applicable.

b. Quality today is not only confined to the product or service alone. The unit may therefore adopt these standards for day to day competition.

c. The margin money recommended is 25% of the working capital requirement at an average. However, the percentage of margin money may vary as per the scheme availed and entrepreneur merits.

d. In this project report the Rate of return is 62.65%, more than any production unit, since this is more labour intensive and service sector, within 2 years, the term loan can be settled, in future the same shop extended with additional features with selling of spares also.

e. B.E.P is 78.56 %, since this is service sector, however more demand for Plumbing and Electrical servicing, there is no difficulty in achieving the B.E.P by this units.

**Addresses of Machinery Equipment and Raw Material Suppliers**

**Name & Address of the Machinery & Testing Equipment**

ABT Engineering Company,
Old No. 69, Sembudoss Street, George Town, Chennai-600001

Union Hardware Stores
No. 203, RasappaChetty Street, Park Town, Near Ethiraj Shopping Complex, George Town, Chennai-600003, Tamil Nadu, India

Premier Machine Tools
256, Ashok Pillar Road, Ambattur Industrial Estate, Chennai - 600058, Tamil Nadu, India

M/s ProSol
No 192,1st Cross Main Road SIDCO Industrial Estate, Ambattur, Chennai-600098,

RVS Corporation
W812, 9th Street, Syndicate Bank Colony, Anna Nagar West Extension, Chennai – 600101.

Rapidtec Enterprises
Door No. 3/1470, Plot No. 20A, AnnaiVelankanni Nagar, Phase 1 2nd Street, Madanandapuram, Mugalivakkam, Porur, Chennai-600125

Dhana Furniture Home
Old No. 78, New No. 157, Broadway, Prakasam Salai, George Town, Chennai – 600108

Prime Office Systems Private Limited,
No.8/15,V V Koil St., Aminjikarai, Opposite To ShivanKoil, Chennai-600029.

Sivananda Electronics,
Survey No.49, LAM Road, Deolali Camp, Deolali, Indrayani Society, Nashik – 422 401.

Sri. Meenakshi Enterprises,
No.18, L.B.Road, Near Adyar Depot, Thiruvanmiyur, Adayar Bus Depot, Chennai – 600 041.

**Name of Raw material Suppliers:**

Available at Local Market.