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# Pre-Feasibility Study

## STEEL NAIL MAKING UNIT



**Small and Medium Enterprises Development Authority**

**Ministry of Industries & Production**

**Government of Pakistan**

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## 1 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. Although, the material included in this document is based on data/information gathered from various reliable sources; however, it is based upon certain assumptions, which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant/technical expert before taking any decision to act upon the information.

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### ***Document Control***

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## 2 EXECUTIVE SUMMARY

**Steel Nail Making Unit** is proposed to be located at Quetta, Loralai, Sibi, Dera Murad Jamali, Gilgit, Chitral, Peshawar, Lahore, Faisalabad, Lasbela, Hub, Karachi, Islamabad, Gujranwala, Dir, Gilgit etc.

Product include **Steel Nails for Industrial, Commercial and Household Uses**

Capacity; Installed capacity **3,120 Tons** and initial utilization **2,028 Tons, 65%**

Total Cost Estimates is **Rs. 38,059,018** with fixed investment **Rs. 31,773,177** and working capital **Rs. 6,285,841**.

Given the cost assumptions IRR and payback are **33 %** and **3.76 years** respectively

The most critical considerations or factors for success of the project are:

- Most significant consideration

Recognizing quality at all levels of an organization, including upper management.

Fostering a responsive corporate culture.

Training all personnel on how to plan, control and improve quality

Availability of hard working & low-cost labor.

Increasing inland trends towards use of steel nails

Large and established world markets.

Improved technological changes available.

- Equally important factor

Emphasizing on excellent services to its customers such as standardized products and timely order fulfillment.

New machinery should be purchased in order to increase the efficiency and lower the maintenance cost.

Refurbished standardized machinery is also recommended.

Adapt to the rapid, social, economic and technological changes.

Hiring of well-trained / experienced staff will add in the efficiency of the facility.

### 3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

### 4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Steel Nail Making Unit** by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and it's successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

## 5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

This project envisages production of steel nails which is having a very bright prospect in industrial, commercial and household use. Steel nail is largely used in the hardboard packing and delivery services.

The building and construction industries are fast growing especially in the economy like Pakistan. The market demand for nail in Pakistan is on the increase daily. As a result, the local industry is growing bigger in the production of nail, hence, there are various type of nails in the market. Nail is an important element of Pakistan's building business sector. Most nails made today are wire nails, made from mild steel wire and more or less round from specific gauges. Previously, 'cut nails' were more common; cut nails which are still made, are from steel or iron plate and so have a rectangular section and have holding power of about 1.5 times greater than that of wire nails of the same length, but are more expensive to manufacture. Nails are increasingly important as a means of fastening wood, and other composite materials.

A nail is a headed pin or spike of metal, commonly of iron. The principal use of nails is in fixing members in wooden construction, but nail are also employed in shoemaking, upholstery and saddlery work. The locally produced nails in Pakistan are been manufactured from the mild steel wire low carbon category which are been drawn from locally produced coils. The steel wires are put into a locally produced nail-making machine which can produce between 500 -700 nails per minute. The nails are then hammered to form nail shape, which are cleaned, finished, and packaged.

### 5.1 Nail Composition

Nails is formerly made of bronze or wrought iron, today's nails are typically made of steel, which is an alloy of iron and carbon, often dipped or coated to prevent corrosion in harsh conditions or improve adhesion. It can be classified as low carbon mild steel nail when the percentage of carbon is between 0.15% - 0.45%.

Other alloying elements such as Nickel, Chromium, Tungsten Molybdenum, cobalt when added will produce an improvement in the properties either by increasing wear resistance or corrosion resistance. Most nail composition are iron, zinc, silver, Monel steel, aluminum, copper, brass, bronze, stainless steel and nickel. Generally, wooden nails are soft which makes it easy for penetration into the wood, the composition are low-carbon mild steel, iron, silicon or manganese. Concrete nails are harder as it does not bend easily when nailed to wall or material, it has more percentage of carbon composition between 0.5 – 0.8% when

compared to wooden nail which has less percentage of carbon composition between 0.15 – 0.45%.

## 5.2 The concept of quality

The concept of quality varies from one user to another with a company producing goods of different degrees of quality. Quality is defined as the fitness for a purpose, whereas assessment has to do with the appraisal of the value of an object or testing its value.

In most parts of the world, nails are described by their dimensions in millimeters, a “150 x 4” is a nail 150mm long and 4mm in diameter and mainly varies in length between 13mm (½in) – 150mm (6in); a description of the ‘head’ and ‘finish’ may be typically added. Some nails have no ‘finish’ and are mostly used for rough carpentry work where appearance is not important, but strength is essential. When inclined they can be used to split a piece wood and can be rusty when used on surfaces in contact with water. A common way of making nails corrosion resistant is to coat them with zinc; Hot-dipped (H.D.) nails can be galvanized by dipping them in molten zinc while electro – galvanized nails are plated with zinc and are not as corrosion – resistant as hot dipped nails. A third process, ‘peening’ is the process of applying zinc onto the nails by roughening the nail surface, all these treatments – especially hot dipping also increase the holding power of the nail.

## 5.3 The ISO 9000 Standard

The ISO 9000 standard (Quality Management and Quality Assurance Standard) is a deliberately generic standard series of quality system management. The ISO 9000 standard has permanently influenced the way manufacturing companies conduct business in world trade and has become the world standard for quality.

The ISO series includes the following standards:

1. ISO 9001 – Quality systems: model for quality assurance in design / development production, installation and servicing.
2. ISO 9002 – Quality systems: model for quality assurance in production and installation.
3. ISO 9003 – Quality systems: model for quality assurance in final inspection and test.
4. ISO 9004 – Quality management and quality system element: Guidelines.

Companies voluntarily register for these standards and are issued certificates ISO 9000 standard is not a product certification. It is a quality process certification; the

QS 9000 standard, ISO 14000 standard are rapidly being employed by manufacturers in the industries.

#### 5.4 Uses of Steel Nails

Apart from mild steel, there are two major types of nails that are common, these are 304 and 316 stainless steel, but stainless steel nails are not as stronger as ordinary steel nails and also stainless steel nails are three times expensive as galvanized nails and are more resistant to rust. Aluminum nails are not so strong for most structural framing, but majorly used to fasten aluminum siding or screening, unlike copper nails that are used in roofing and in marine application.

Following key parameters must be addressed as per pre-feasibility study under preparation

- **Technology:** This proposed unit with modern processing and production machines including Nail Making Machine 8 Gauge, 10 Gauge, 12 Gauge, 14 Gauge, 17 Gauge, 19 Gauge, 20 Gauge, 21 Gauge, 22 Gauge, Nail Polishing Drum, Nail Cutter Grinder, Wire Coil Stand etc.
- **Location:** The unit would be located in or near an area where the raw material is available easily like Quetta, Loralai, Peshawar, Lahore, Faisalabad, Lasbela, Hub, Karachi, Islamabad or any other site where raw material can be transported easily.
- **Product:** The unit would produce Steel Nails for industrial, commercial and household uses.
- **Target Market:** As domestic consumption is available, Steel Nails industry will be dependent largely on the local market. But Steel Nails can be exported.
- **Employment Generation:** The proposed project will provide direct employment to 15 people. Financial analysis shows the unit shall be profitable from the very first year of operation.

#### 5.5 Production Process Flow

Manufacturing of nails passes through the following steps. In the first step, feeding of wire coil to nail making machine to form the bottom and top portion of nail and cut the nail. Here the manufacturing of flat head nails ends here. Now manufacturing of the nail head on a washer making machine is carried on in which at this stage polishing of head part is done in the machine and the head parts are feed to the nail making machine. Punching of the head to the nail and pressing in to umbrella shape will be done. In the polishing of all manufactured nail i.e. flat



head and topped nail is done. Polishing is the process of removing excess oil and grease applied to machine and wire during production to prevent corrosion, friction effect and rusting.

## 5.6 Materials for Nails

Production of nails require the following raw materials

- i. Chemical like low carbon mild steel wire
- ii. Rolled steel (cold) sheet wire

## 5.7 Installed And Operational Capacities

The total installed capacity of the project is **3,120 Tons** of Steel Nails along with assumed operational capacity of **65%** during the first year of operations i.e. **2,028 Tons** of steel nails. A gradual increase of **3%** in production capacity per annum.

## 6 CRITICAL FACTORS

Steel Nails have a wide range of application, not only in industrial sector but also in the commercial and household. Certain critical factors involved during the production process of steel nails are:

- Create constancy of purpose towards improvement of product and service
- Adopt the new philosophy
- Cease dependence on mass inspection to achieve quality
- End the practice of awarding business on the basis of price tag
- Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease cost
- Institute training on the job
- Drive out fear so that everyone can work effectively
- Break down banners between departments
- Eliminate slogans, exhortations and targets for zero defect and new level of productivity
- Institute a vigorous program of education and self-improvement
- Put everybody in the company to work to accomplish the transformation.

## 7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

It is suitable to establish the production unit Quetta, Hub, Loralai, Bostan, Sibi, Peshawar, Lahore and Karachi. However such a unit could be established in other parts of the country provided the main conditions are fulfilled such as Availability of

low carbon mild steel wire. Along with, manpower availability, accessibility to markets, and reasonable demand & usage of steel nails should be considered.

## 8 POTENTIAL TARGET CUSTOMERS / MARKETS

As domestic consumption is available, Steel Nails industry will be dependent largely on the local market. Most of the Steel Nail used for industrial, commercial and household applications could be produced.

## 9 PROJECT COST SUMMARY

### 9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 328.82 million in the year one. The capacity utilization during year one is worked out at 65% with 3% increase in subsequent years up to the maximum capacity utilization of 95%.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

**Table 1: Project Economics**

| Description                   | Details    |
|-------------------------------|------------|
| Internal Rate of Return (IRR) | 33%        |
| Payback Period (yrs.)         | 3.76       |
| Net Present Value (Rs.)       | 42,005,563 |

### 9.2 Project Financing

Following table provides details of the equity required and variables related to bank loan;

**Table 2: Project Financing**

| Description                           | Details        |
|---------------------------------------|----------------|
| Total Equity (50%)                    | Rs. 19,029,509 |
| Bank Loan (50%)                       | Rs. 19,029,509 |
| Markup to the Borrower (%age / annum) | 16%            |
| Tenure of the Loan (Years)            | 5 Years        |

### 9.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business.

**Table 3: Project Cost**

| Description                     | Amount Rs.        |
|---------------------------------|-------------------|
| <b>Capital Cost</b>             |                   |
| Land                            | 3,944,444         |
| Building / Infrastructure       | 9,389,080         |
| Plant and Machinery             | 16,786,400        |
| Furniture & Fixture             | 532,500           |
| Office Equipment                | 497,500           |
| Pre-operating Cost              | 623,253           |
| <b>Total Capital Cost</b>       | <b>31,773,177</b> |
| <b>Working Capital</b>          |                   |
| Equipment Spare Parts Inventory | 809,468           |
| Raw Material Inventory          | 4,137,054         |
| Up-front Insurance Payments     | 839,320           |
| Cash                            | 500,000           |
| <b>Total Working Capital</b>    | <b>6,285,841</b>  |
| <b>Total Project Cost</b>       | <b>38,059,018</b> |

### 9.4 Space Requirement

The space requirement for the proposed **Steel Nail Making Unit** is estimated considering various facilities including management office, production hall, storage, open space, etc. Details of space requirement and cost related to land & building is given below;

**Table 4: Space Requirement**

| Description       | Estimated Area (Sqft) | Unit Cost (Rs.) | Total Cost (Rs.) |
|-------------------|-----------------------|-----------------|------------------|
| Management Office | 500                   | 1,200           | 600,000          |
| Working Shed Area | 15,000                | 526             | 7,889,080        |

|                      |               |     |                  |
|----------------------|---------------|-----|------------------|
| Restrooms            | 800           | 500 | 400,000          |
| Drive way / Pavement | 10,000        | 30  | 300,000          |
| Grounds              | 10,000        | 20  | 200,000          |
| <b>Total</b>         | <b>36,300</b> |     | <b>9,389,080</b> |

## 9.5 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below.

**Table 5: Machinery & Equipment**

| Description                  | Quantity | Unit Cost (Rs.) | Total Cost (Rs.)  |
|------------------------------|----------|-----------------|-------------------|
| Nail Making Machine 8 Gauge  | 1        | 750,000         | 750,000           |
| Nail Making Machine 10 Gauge | 1        | 450,000         | 450,000           |
| Nail Making Machine 12 Gauge | 2        | 320,000         | 640,000           |
| Nail Making Machine 14 Gauge | 3        | 260,000         | 780,000           |
| Nail Making Machine 17 Gauge | 6        | 200,000         | 1,200,000         |
| Nail Making Machine 19 Gauge | 6        | 200,000         | 1,200,000         |
| Nail Making Machine 20 Gauge | 6        | 200,000         | 1,200,000         |
| Nail Making Machine 21 Gauge | 6        | 200,000         | 1,200,000         |
| Nail Making Machine 22 Gauge | 6        | 200,000         | 1,200,000         |
| Polishing Drum               | 3        | 250,000         | 750,000           |
| Transformer 50 kv            | 1        | 2,500,000       | 2,500,000         |
| Generator                    | 1        | 1,200,000       | 1,200,000         |
| Nail Cutter Grinder          | 1        | 200,000         | 200,000           |
| Wire Coil Stand              | 10       | 20,000          | 200,000           |
| Installation                 | 1        | 450,000         | 450,000           |
| Total machinery cost         |          |                 | 13,920,000        |
| GST 17%                      |          | 0.17            |                   |
| <b>Total</b>                 |          |                 | <b>16,286,400</b> |
| Transportation charges       | 1        | 500,000         | 500,000           |
| <b>Total</b>                 |          |                 | <b>16,786,400</b> |

## 9.6 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below;

**Table 6: Furniture & Fixture**

| Description                    | Quantity | Unit Cost (Rs.) | Total Cost (Rs.) |
|--------------------------------|----------|-----------------|------------------|
| Tables                         | 3        | 6,000           | 18,000           |
| Executive Chairs               | 3        | 5,000           | 15,000           |
| Visitors Chairs                | 7        | 3,500           | 24,500           |
| Carpeting & Wiring             | 1,000    | 385             | 385,000          |
| Air Conditioners (2 ton Split) | 1        | 90,000          | 90,000           |
| <b>Total</b>                   |          |                 | <b>532,500</b>   |

### 9.7 Office Equipment Requirement

Following office equipment will be required for **Steel Nail Making Unit**;

**Table 7: Office Equipment**

| Description        | Quantity | Unit Cost (Rs.) | Total Cost (Rs.) |
|--------------------|----------|-----------------|------------------|
| Laptop             | 2        | 50,000          | 50,000           |
| Printer            | 1        | 20,000          | 20,000           |
| Fax Machine        | 1        | 20,000          | 20,000           |
| Telephone Exchange | 1        | 150,000         | 150,000          |
| Telephone Sets     | 3        | 2,500           | 7,500            |
| Photo Copier       | 1        | 200,000         | 200,000          |
| <b>Total</b>       |          |                 | <b>497,500</b>   |

### 9.8 Human Resource Requirement

In order to run operations of **Steel Nail Making Unit** smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

**Table 8: Human Resource Requirement**

| Description | No. of Employees | Monthly Salary per person (Rs.) |
|-------------|------------------|---------------------------------|
| CEO         | 1                | 50,000                          |
| Manager     | 1                | 45,000                          |
| Supervisor  | 1                | 35,000                          |

|                             |           |                |
|-----------------------------|-----------|----------------|
| Electrician                 | 1         | 25,000         |
| Accountant cum Receptionist | 1         | 22,000         |
| Salesman                    | 1         | 22,000         |
| Skilled Worker/ Operator    | 4         | 22,000         |
| Semi-Skilled Worker         | 2         | 18,000         |
| Mechanic                    | 1         | 25,000         |
| Security Guard              | 2         | 18,000         |
| <b>Total</b>                | <b>15</b> | <b>349,000</b> |

### 9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity and gas. The electricity expenses are estimated to be around Rs. 3,006,815 / year. Furthermore, promotional expense being essential for marketing of **Steel Nail Making Unit** is estimated as 1% of administrative / Cost of Sales expenses.

### 9.10 Revenue Generation

Based on the capacity utilization of 65% for Steel Nails Sales revenue during the first year of operations is estimated as under;

**Table 9: Revenue Generation – Year 1**

| Description | No. of Tons Produced (No.) | Finished Goods Inventory (Tons) | Units available for Sale (Tons) | Sale Price / Ton (Rs.) | Sales Revenue (Rs.) |
|-------------|----------------------------|---------------------------------|---------------------------------|------------------------|---------------------|
| Steel Nails | 2,028                      | 85                              | 1,943                           | 169,191                | 328,822,762         |

## 10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

### 10.1 Machinery Suppliers

| Name of Supplier      | Address                                       | Phone           | Fax | E-mail                                 | Website  |
|-----------------------|---|-----------------|-----|--|--|
| Raja Nail Machinery   | Main G.T.Road<br>Daroghawala<br>Chowk, Lahore | 0322-<br>847739 |     |  |  |
| New England Machinery | Main G.T.Road<br>Daroghawala<br>Chowk, Lahore | 042-<br>6559373 |     | new_england_<br>machines<br>@yahoo.com | www.new<br>England<br>machinery<br>store.enic.pk |

### 10.2 Raw Material Suppliers

| Name of Supplier                     | Address   | Phone                        | Fax | E-mail | Website |
|--------------------------------------|---|------------------------------|-----|--------|---------|
| Nizami Wires PVT LTD                 | Nizami<br>Building,<br>Lahore,                                      | 042-<br>3217774798           |     |        |         |
| STRONGWILL WIRE INDUSTRIES (PVT) LTD | Share-e-<br>Faisal,<br>P.E.C.H.S,<br>Karachi,<br>Sindh,<br>Pakistan | 021-35241034<br>0332-3274880 |     |        |         |

### 10.3 Technical Experts / Consultants

| Name of Expert/ Organization                    | Address                                      | Phone                       | Fax             | E-mail                                 | Website                  |
|---|--|-----------------------------|-----------------|--|--------------------------|
| Pakistan Industrial Technical Assistance Centre | 234 Ferozepur Road, Garden Town, Lahore      | (042)<br>99230699           |                 | info@pi<br>tac.gov.<br>pk              | www.pit<br>ac.gov.<br>pk |
| PCSIR Laboratories Quetta                       | Mastung Road,<br>near Main Ghundi,<br>Quetta | 081-<br>2460128,<br>2460161 | 081-<br>2460158 | pcsirqta<br>@qta.p<br>aknet.c<br>om.pk | www.pc<br>sir.gov.<br>pk |

## 11 USEFUL WEB LINKS

|   |  |
|---|--|
| <b>Small &amp; Medium Enterprises Development Authority (SMEDA)</b>             | <a href="http://www.smeda.org.pk">www.smeda.org.pk</a>                         |
| <b>Government of Pakistan</b>   | <a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>                   |
| <b>Ministry of Industries &amp; Production</b>                                  | <a href="http://www.moip.gov.pk">www.moip.gov.pk</a>                           |
| <b>Ministry of Education, Training &amp; Standards in Higher Education</b>      | <a href="http://moptt.gov.pk">http://moptt.gov.pk</a>                          |
| <b>Government of Punjab</b>   | <a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>                       |
| <b>Government of Sindh</b>  | <a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>                         |
| <b>Government of Khyber Pakhtunkhwa</b>   | <a href="http://www.khyberpakhtunkhwa.gov.pk">www.khyberpakhtunkhwa.gov.pk</a> |
| <b>Government of Balochistan</b>  | <a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>             |
| <b>Government of Gilgit Baltistan</b>   | <a href="http://www.gilgitbaltistan.gov.pk">www.gilgitbaltistan.gov.pk</a>     |
| <b>Government of Azad Jamu Kashmir</b>  | <a href="http://www.ajk.gov.pk">www.ajk.gov.pk</a>                             |
| <b>Trade Development Authority of Pakistan (TDAP)</b>                           | <a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>                           |
| <b>Security Commission of Pakistan (SECP)</b>                                   | <a href="http://www.secp.gov.pk">www.secp.gov.pk</a>                           |
| <b>Federation of Pakistan Chambers of Commerce and Industry (FPCCI)</b>         | <a href="http://www.fpcci.com.pk">www.fpcci.com.pk</a>                         |
| <b>State Bank of Pakistan (SBP)</b>   | <a href="http://www.sbp.org.pk">www.sbp.org.pk</a>                             |
| <b>Punjab Small Industries Corporation</b>                                      | <a href="http://www.psic.gop.pk">www.psic.gop.pk</a>                           |
| <b>Sindh Small Industries Corporation</b>                                       | <a href="http://www.ssic.gos.pk">www.ssic.gos.pk</a>                           |
| <b>Pakistan Horticulture Development and Export Company (PHDEC)</b>             | <a href="http://www.phdec.org.pk">www.phdec.org.pk</a>                         |
| <b>Punjab Vocational Training Council (PVTC)</b>                                | <a href="http://www.pvtc.gop.pk">www.pvtc.gop.pk</a>                           |
| <b>Technical Education and Vocational Training Authority (TEVTA)</b>            | <a href="http://www.tevta.org">www.tevta.org</a>                               |
| <b>Pakistan Readymade Garment Technical Training Institute</b>                  | <a href="http://www.prgmea.org/prgtti/">www.prgmea.org/prgtti/</a>             |
| <b>Pakistan Council of Scientific and Industrial Research (PCSIR).</b>          | <a href="http://www.pcsir.gov.pk">http://www.pcsir.gov.pk</a>                  |
| <b>Punjab Industrial Estates (PIE)</b>  | <a href="http://www.pie.com.pk">www.pie.com.pk</a>                             |
| <b>Faisalabad Industrial Estate Development and Management Company (FIEDMC)</b> | <a href="http://www.fiedmc.com.pk">www.fiedmc.com.pk</a>                       |



## 12 ANNEXURES

## 12.1 Income Statement

| Statement Summaries                                  |                  |                  |                  |                   |                   |                   |                   |                   |                   | SMEDA             |
|--|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Income Statement                                     |                  |                  |                  |                   |                   |                   |                   |                   |                   | Rs. in actuals    |
|  | Year 1           | Year 2           | Year 3           | Year 4            | Year 5            | Year 6            | Year 7            | Year 8            | Year 9            | Year 10           |
| Revenue  | 328,822,762      | 394,125,423      | 452,699,865      | 519,047,940       | 594,138,632       | 679,056,983       | 775,017,617       | 883,379,809       | 1,005,664,263     | 1,143,571,810     |
| Cost of goods sold                                   | 306,341,433      | 367,583,745      | 421,920,845      | 483,449,525       | 553,064,733       | 631,768,488       | 720,682,351       | 821,061,306       | 934,309,236       | 1,061,996,150     |
| Gross Profit   | 22,481,329       | 26,541,678       | 30,779,020       | 35,598,415        | 41,073,899        | 47,288,495        | 54,335,267        | 62,318,503        | 71,355,026        | 81,575,660        |
| <i>General administration &amp; selling expenses</i> |                  |                  |                  |                   |                   |                   |                   |                   |                   |                   |
| Administration expense                               | 2,574,000        | 3,404,015        | 3,735,435        | 4,099,122         | 4,498,218         | 4,936,171         | 5,416,764         | 5,944,148         | 6,522,878         | 7,157,955         |
| Rental expense                                       | -                | -                | -                | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| Utilities expense                                    | 3,006,815        | 3,307,496        | 3,638,246        | 4,002,070         | 4,402,277         | 4,842,505         | 5,326,755         | 5,859,431         | 6,445,374         | 7,089,911         |
| Travelling & Comm. expense (phone, fax, etc.)        | 23,400           | 30,946           | 33,958           | 37,265            | 40,893            | 44,874            | 49,243            | 54,038            | 59,299            | 65,072            |
| Office vehicles running expense                      | -                | -                | -                | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| Office expenses (stationary, etc.)                   | 23,400           | 30,946           | 33,958           | 37,265            | 40,893            | 44,874            | 49,243            | 54,038            | 59,299            | 65,072            |
| Promotional expense                                  | 3,288,228        | 3,941,254        | 4,526,999        | 5,190,479         | 5,941,386         | 6,790,570         | 7,750,176         | 8,833,798         | 10,056,643        | 11,435,718        |
| Insurance expense                                    | 839,320          | 755,388          | 671,456          | 587,524           | 503,592           | 419,660           | 335,728           | 251,796           | 167,864           | 83,932            |
| Professional fees (legal, audit, etc.)               | 1,644,114        | 1,970,627        | 2,263,499        | 2,595,240         | 2,970,693         | 3,395,285         | 3,875,088         | 4,416,899         | 5,028,321         | 5,717,859         |
| Depreciation expense                                 | 2,251,094        | 2,251,094        | 2,251,094        | 2,251,094         | 2,251,094         | 2,251,094         | 2,251,094         | 2,251,094         | 2,251,094         | 2,251,094         |
| Amortization expense                                 | 124,651          | 124,651          | 124,651          | 124,651           | 124,651           | -                 | -                 | -                 | -                 | -                 |
| Property tax expense                                 | -                | -                | -                | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| Miscellaneous expense                                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| Subtotal   | 13,775,021       | 15,816,416       | 17,279,296       | 18,924,709        | 20,773,697        | 22,725,033        | 25,054,092        | 27,665,241        | 30,590,772        | 33,866,614        |
| Operating Income                                     | 8,706,309        | 10,725,262       | 13,499,724       | 16,673,706        | 20,300,202        | 24,563,461        | 29,281,175        | 34,653,262        | 40,764,255        | 47,709,046        |
| Other income   | -                | -                | -                | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| Gain / (loss) on sale of assets                      | -                | -                | -                | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| Earnings Before Interest & Taxes                     | 8,706,309        | 10,725,262       | 13,499,724       | 16,673,706        | 20,300,202        | 24,563,461        | 29,281,175        | 34,653,262        | 40,764,255        | 47,709,046        |
| Interest expense                                     | 2,696,046        | 1,992,829        | 1,537,492        | 1,003,715         | 377,983           | -                 | -                 | -                 | -                 | -                 |
| Earnings Before Tax                                  | 6,010,263        | 8,732,434        | 11,962,232       | 15,669,991        | 19,922,219        | 24,563,461        | 29,281,175        | 34,653,262        | 40,764,255        | 47,709,046        |
| Tax  | 1,502,566        | 2,183,108        | 2,990,558        | 3,917,498         | 4,980,555         | 6,140,865         | 7,320,294         | 8,663,315         | 10,191,064        | 11,927,261        |
| <b>NET PROFIT/(LOSS) AFTER TAX</b>                   | <b>4,507,697</b> | <b>6,549,325</b> | <b>8,971,674</b> | <b>11,752,493</b> | <b>14,941,664</b> | <b>18,422,596</b> | <b>21,960,881</b> | <b>25,989,946</b> | <b>30,573,191</b> | <b>35,781,784</b> |
| Balance brought forward                              |                  | 4,507,697        | 8,845,618        | 14,253,833        | 20,805,061        | 28,597,380        | 37,615,981        | 47,661,489        | 58,921,149        | 71,595,472        |
| Total profit available for appropriation             | 4,507,697        | 11,057,022       | 17,817,292       | 26,006,327        | 35,746,725        | 47,019,976        | 59,576,862        | 73,651,436        | 89,494,340        | 107,377,256       |
| Dividend   | -                | 2,211,404        | 3,563,458        | 5,201,265         | 7,149,345         | 9,403,995         | 11,915,372        | 14,730,287        | 17,898,868        | 21,475,451        |
| Balance carried forward                              | 4,507,697        | 8,845,618        | 14,253,833       | 20,805,061        | 28,597,380        | 37,615,981        | 47,661,489        | 58,921,149        | 71,595,472        | 85,901,805        |

## 12.2 Balance Sheet

| Statement Summaries  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    | SMEDA              |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Balance Sheet  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    | Rs. in actuals     |
|  | Year 0            | Year 1            | Year 2            | Year 3            | Year 4            | Year 5            | Year 6             | Year 7             | Year 8             | Year 9             | Year 10            |
| <b>Assets</b>  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| <i>Current assets</i>  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| Cash & Bank  | 500,000           | 501,258           | 5,232,772         | 7,632,203         | 10,409,559        | 13,167,550        | 20,078,282         | 27,040,041         | 34,006,752         | 40,890,502         | 94,070,911         |
| Accounts receivable  | -                 | 13,513,264        | 14,855,100        | 17,400,520        | 19,967,421        | 22,873,697        | 26,161,554         | 29,878,245         | 34,076,659         | 38,815,974         | 44,162,385         |
| Finished goods inventory   | -                 | 13,319,193        | 15,344,196        | 17,611,041        | 20,177,814        | 23,081,834        | 26,364,882         | 30,073,723         | 34,260,685         | 38,984,305         | 44,310,043         |
| Equipment spare part inventory   | 809,468           | 1,067,247         | 1,348,446         | 1,700,682         | 2,141,392         | 2,692,200         | 3,379,912          | 4,237,736          | 5,306,793          | 6,637,970          | -                  |
| Raw material inventory   | 4,137,054         | 5,454,519         | 6,891,679         | 8,691,902         | 10,944,296        | 13,759,382        | 17,274,161         | 21,658,359         | 27,122,129         | 33,925,550         | -                  |
| Pre-paid annual land lease   | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Pre-paid building rent   | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Pre-paid lease interest  | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Pre-paid insurance   | 839,320           | 755,388           | 671,456           | 587,524           | 503,592           | 419,660           | 335,728            | 251,796            | 167,864            | 83,932             | -                  |
| <b>Total Current Assets</b>  | <b>6,285,841</b>  | <b>34,610,868</b> | <b>44,343,647</b> | <b>53,623,871</b> | <b>64,144,074</b> | <b>75,994,323</b> | <b>93,594,519</b>  | <b>113,139,901</b> | <b>134,940,883</b> | <b>159,338,233</b> | <b>182,543,339</b> |
| <i>Fixed assets</i>  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| Land   | 3,944,444         | 3,944,444         | 3,944,444         | 3,944,444         | 3,944,444         | 3,944,444         | 3,944,444          | 3,944,444          | 3,944,444          | 3,944,444          | 3,944,444          |
| Building/Infrastructure  | 9,389,080         | 8,919,626         | 8,450,172         | 7,980,718         | 7,511,264         | 7,041,810         | 6,572,356          | 6,102,902          | 5,633,448          | 5,163,994          | 4,694,540          |
| Machinery & equipment  | 16,786,400        | 15,107,760        | 13,429,120        | 11,750,480        | 10,071,840        | 8,393,200         | 6,714,560          | 5,035,920          | 3,357,280          | 1,678,640          | -                  |
| Furniture & fixtures   | 532,500           | 479,250           | 426,000           | 372,750           | 319,500           | 266,250           | 213,000            | 159,750            | 106,500            | 53,250             | -                  |
| Office vehicles  | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Office equipment   | 497,500           | 447,750           | 398,000           | 348,250           | 298,500           | 248,750           | 199,000            | 149,250            | 99,500             | 49,750             | -                  |
| <b>Total Fixed Assets</b>  | <b>31,149,924</b> | <b>28,898,830</b> | <b>26,647,736</b> | <b>24,396,642</b> | <b>22,145,548</b> | <b>19,894,454</b> | <b>17,643,360</b>  | <b>15,392,266</b>  | <b>13,141,172</b>  | <b>10,890,078</b>  | <b>8,638,984</b>   |
| <i>Intangible assets</i>   |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| Pre-operation costs  | 623,253           | 498,602           | 373,952           | 249,301           | 124,651           | -                 | -                  | -                  | -                  | -                  | -                  |
| Legal, licensing, & training costs   | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| <b>Total Intangible Assets</b>   | <b>623,253</b>    | <b>498,602</b>    | <b>373,952</b>    | <b>249,301</b>    | <b>124,651</b>    | <b>-</b>          | <b>-</b>           | <b>-</b>           | <b>-</b>           | <b>-</b>           | <b>-</b>           |
| <b>TOTAL ASSETS</b>  | <b>38,059,018</b> | <b>64,008,300</b> | <b>71,365,335</b> | <b>78,269,815</b> | <b>86,414,272</b> | <b>95,888,777</b> | <b>111,237,879</b> | <b>128,532,167</b> | <b>148,082,055</b> | <b>170,228,311</b> | <b>191,182,323</b> |
| <b>Liabilities &amp; Shareholders' Equity</b>  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| <i>Current liabilities</i>   |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| Accounts payable   | -                 | 25,336,660        | 30,403,183        | 34,997,927        | 40,223,413        | 46,163,587        | 52,913,749         | 60,582,188         | 69,292,077         | 79,183,670         | 86,251,009         |
| Export re-finance facility   | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Short term debt  | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Other liabilities  | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| <b>Total Current Liabilities</b>   | <b>-</b>          | <b>25,336,660</b> | <b>30,403,183</b> | <b>34,997,927</b> | <b>40,223,413</b> | <b>46,163,587</b> | <b>52,913,749</b>  | <b>60,582,188</b>  | <b>69,292,077</b>  | <b>79,183,670</b>  | <b>86,251,009</b>  |
| <i>Other liabilities</i>   |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| Lease payable  | -                 | -                 | -                 | -                 | -                 | -                 | -                  | -                  | -                  | -                  | -                  |
| Deferred tax   | -                 | 1,502,566         | 2,098,300         | 2,098,300         | 2,098,300         | 2,098,300         | 1,678,640          | 1,258,980          | 839,320            | 419,660            | 0                  |
| Long term debt   | 19,029,509        | 13,631,868        | 10,988,725        | 7,890,246         | 4,257,989         | -                 | -                  | -                  | -                  | -                  | -                  |
| <b>Total Long Term Liabilities</b>   | <b>19,029,509</b> | <b>15,134,434</b> | <b>13,087,025</b> | <b>9,988,546</b>  | <b>6,356,289</b>  | <b>2,098,300</b>  | <b>1,678,640</b>   | <b>1,258,980</b>   | <b>839,320</b>     | <b>419,660</b>     | <b>0</b>           |
| <i>Shareholders' equity</i>  |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |
| Paid-up capital  | 19,029,509        | 19,029,509        | 19,029,509        | 19,029,509        | 19,029,509        | 19,029,509        | 19,029,509         | 19,029,509         | 19,029,509         | 19,029,509         | 19,029,509         |
| Retained earnings  | -                 | 4,507,697         | 8,845,618         | 14,253,833        | 20,805,061        | 28,597,380        | 37,615,981         | 47,661,489         | 58,921,149         | 71,595,472         | 85,901,805         |
| <b>Total Equity</b>  | <b>19,029,509</b> | <b>23,537,206</b> | <b>27,875,127</b> | <b>33,283,343</b> | <b>39,834,570</b> | <b>47,626,889</b> | <b>56,645,490</b>  | <b>66,690,999</b>  | <b>77,950,658</b>  | <b>90,624,981</b>  | <b>104,931,314</b> |
| <b>TOTAL CAPITAL AND LIABILITY</b>   | <b>38,059,018</b> | <b>64,008,300</b> | <b>71,365,335</b> | <b>78,269,815</b> | <b>86,414,272</b> | <b>95,888,777</b> | <b>111,237,879</b> | <b>128,532,167</b> | <b>148,082,055</b> | <b>170,228,311</b> | <b>191,182,323</b> |
| <i>Note: Total assets value will differ from project cost due to first installment of leases paid at the start of year 0</i> |                   |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |

## 12.3 Cash Flow Statement

| Statement Summaries                  |                |              |                  |                  |                  |                  |                   |                   |                   |                   | SMEDA             |
|--------------------------------------|----------------|--------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Cash Flow Statement                  |                |              |                  |                  |                  |                  |                   |                   |                   |                   |                   |
|                                      | Year 0         | Year 1       | Year 2           | Year 3           | Year 4           | Year 5           | Year 6            | Year 7            | Year 8            | Year 9            | Year 10           |
|                                      | Rs. in actuals |              |                  |                  |                  |                  |                   |                   |                   |                   |                   |
| <i>Operating activities</i>          |                |              |                  |                  |                  |                  |                   |                   |                   |                   |                   |
| Net profit                           | -              | 4,507,697    | 6,549,325        | 8,971,674        | 11,752,493       | 14,941,664       | 18,422,596        | 21,960,881        | 25,989,946        | 30,573,191        | 35,781,784        |
| Add: depreciation expense            | -              | 2,251,094    | 2,251,094        | 2,251,094        | 2,251,094        | 2,251,094        | 2,251,094         | 2,251,094         | 2,251,094         | 2,251,094         | 2,251,094         |
| amortization expense                 | -              | 124,651      | 124,651          | 124,651          | 124,651          | 124,651          | -                 | -                 | -                 | -                 | -                 |
| Deferred income tax                  | -              | 1,502,566    | 595,734          | -                | -                | -                | (419,660)         | (419,660)         | (419,660)         | (419,660)         | (419,660)         |
| Accounts receivable                  | -              | (13,513,264) | (1,341,835)      | (2,545,420)      | (2,566,901)      | (2,906,276)      | (3,287,857)       | (3,716,691)       | (4,198,414)       | (4,739,315)       | (5,346,411)       |
| Finished good inventory              | -              | (13,319,193) | (2,025,003)      | (2,266,845)      | (2,566,774)      | (2,904,020)      | (3,283,048)       | (3,708,841)       | (4,186,962)       | (4,723,619)       | (5,325,739)       |
| Equipment inventory                  | (809,468)      | (257,779)    | (281,199)        | (352,237)        | (440,710)        | (550,808)        | (687,712)         | (857,825)         | (1,069,057)       | (1,331,177)       | 6,637,970         |
| Raw material inventory               | (4,137,054)    | (1,317,465)  | (1,437,160)      | (1,800,223)      | (2,252,394)      | (2,815,086)      | (3,514,779)       | (4,384,198)       | (5,463,770)       | (6,803,420)       | 33,925,550        |
| Pre-paid building rent               | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Pre-paid lease interest              | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Advance insurance premium            | (839,320)      | 83,932       | 83,932           | 83,932           | 83,932           | 83,932           | 83,932            | 83,932            | 83,932            | 83,932            | 83,932            |
| Accounts payable                     | -              | 25,336,660   | 5,066,523        | 4,594,744        | 5,225,487        | 5,940,174        | 6,750,162         | 7,668,439         | 8,709,889         | 9,891,592         | 7,067,340         |
| Other liabilities                    | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Cash provided by operations          | (5,785,841)    | 5,398,899    | 9,586,062        | 9,061,369        | 11,610,878       | 14,165,325       | 16,314,728        | 18,877,131        | 21,696,997        | 24,782,618        | 74,655,860        |
| <i>Financing activities</i>          |                |              |                  |                  |                  |                  |                   |                   |                   |                   |                   |
| Change in long term debt             | 19,029,509     | (5,397,641)  | (2,643,143)      | (3,098,479)      | (3,632,257)      | (4,257,989)      | -                 | -                 | -                 | -                 | -                 |
| Change in short term debt            | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Change in export re-finance facility | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Add: land lease expense              | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Land lease payment                   | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Change in lease financing            | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Issuance of shares                   | 19,029,509     | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Purchase of (treasury) shares        | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Cash provided by / (used for) financ | 38,059,018     | (5,397,641)  | (2,643,143)      | (3,098,479)      | (3,632,257)      | (4,257,989)      | -                 | -                 | -                 | -                 | -                 |
| <i>Investing activities</i>          |                |              |                  |                  |                  |                  |                   |                   |                   |                   |                   |
| Capital expenditure                  | (31,773,177)   | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Acquisitions                         | -              | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| Cash (used for) / provided by invest | (31,773,177)   | -            | -                | -                | -                | -                | -                 | -                 | -                 | -                 | -                 |
| <b>NET CASH</b>                      | <b>500,000</b> | <b>1,258</b> | <b>6,942,919</b> | <b>5,962,890</b> | <b>7,978,621</b> | <b>9,907,336</b> | <b>16,314,728</b> | <b>18,877,131</b> | <b>21,696,997</b> | <b>24,782,618</b> | <b>74,655,860</b> |
| Cash balance brought forward         |                | 500,000      | 501,258          | 5,232,772        | 7,632,203        | 10,409,559       | 13,167,550        | 20,078,282        | 27,040,041        | 34,006,752        | 40,890,502        |
| Cash available for appropriation     | 500,000        | 501,258      | 7,444,176        | 11,195,661       | 15,610,824       | 20,316,895       | 29,482,278        | 38,955,414        | 48,737,039        | 58,789,370        | 115,546,362       |
| Dividend                             | -              | -            | 2,211,404        | 3,563,458        | 5,201,265        | 7,149,345        | 9,403,995         | 11,915,372        | 14,730,287        | 17,898,868        | 21,475,451        |
| Cash carried forward                 | 500,000        | 501,258      | 5,232,772        | 7,632,203        | 10,409,559       | 13,167,550       | 20,078,282        | 27,040,041        | 34,006,752        | 40,890,502        | 94,070,911        |

## 13 KEY ASSUMPTIONS

### 13.1 Operating Assumptions

| Description                | Details |
|----------------------------|---------|
| Days operational per month | 26      |
| Days operational per year  | 312     |

### 13.2 Production Assumptions

| Description                                  | Details |
|--|---------|
| Maximum Capacity Utilization                 | 95%     |
| Total Production of tons per day             | 10      |
| Total Production of tons per month           | 260     |
| Total Production of the unit per year (100%) | 3,120   |

### 13.3 Economy Related Assumptions

| Description                   | Details |
|-------------------------------|---------|
| Electricity price growth rate | 10%     |
| Wage growth rate              | 10%     |
| Sales price growth rate       | 10%     |

### 13.4 Cash Flow Assumptions

| Description                         | Details |
|-------------------------------------|---------|
| Accounts Receivable cycle (in days) | 15      |
| Accounts payable cycle (in days)    | 30      |