



Pre-feasibility Study

STEEL CONTINUOUS CASTING PLANT

December 2018

“The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, and revenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA’s website and consult financial experts to stay current with market conditions.”

Small and Medium Enterprises Development Authority
Ministry of Industries and 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

Continuous casting is a metal forming process in which metal scrap is passed through a furnace to melt it down and cast in steel billets. This particular pre-feasibility study is for setting up a medium sized steel continuous casting unit to produce steel billets of different diameters. The focus of the business would be to provide steel products raw material to meet the growing demand of the local housing & construction industry.

Steel scrap is the basic raw material for this unit. Whereas, the target customers mainly comprises of steel rerolling mills.

The proposed project will be producing billets **Steel Billets 80 mm, Steel Billets 100 mm** and **Steel Billets 125 mm** with a product mix of 30%, 40% and 30% respectively. Total installed production capacity of casting mill is **54,750 tons** in a year based on 312 working days with 16 working hours per day. The operational capacity is assumed to be 60% in year 1. The entrepreneur's knowledge and experience of the steel industry will be key factor for the success of the business.

The total project cost for setting up the proposed **Steel Continuous Casting Unit** is estimated at **Rs. 190.903 million** out of which **Rs. 149.839 million is capital cost** and **Rs. 41.06 million is working capital**. The project is proposed to be financed through **50% debt and 50% equity**. The NPV is projected around Rs. 1,416 million, with an IRR of 72% and a payback period of 2.21 years. The legal business status of this project is proposed as a 'Sole Proprietorship'.

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

- **Most Significant Consideration**

Greater response to customer's present & future needs

Focus on productivity & quality.

Facing challenges of free market economy.

Ensuring higher rate of return on capital employed (RoCE)

Developing human resource and motivating employees through MBO, (Management by Objective), empowerment and hard consequences.

Safe working and environment friendly conditions.

Minimizing process wastages & rejections and recycling wastes

- **Equally important factor**

Maintaining highest degree of corporate governance practices;

Conducting business activities with the highest principles of honesty, integrity, truthfulness and honor;

Promoting ethical business practices;

Value diversity in the workplace;

Provide healthy and safe working environments;

Respect human rights and trade ethically;

Act in utmost good faith and exercise due care, diligence and integrity in performing the economic duties;

Comply with all applicable laws and regulations;

Ensure that all business transactions are recorded in true, fair and timely fashion in accordance with the accounting and financial reporting standards, as applicable to the Company;

Deliver superior value for stakeholders – intent should be to outperform competitors by delivering superior growth and returns to our stakeholders;

Leading the industry in innovation, technology development, and conscientious stewardship of global resources – intent is to develop technological solutions that gives customers economic access to high quality construction material with maximum use of scarce resources and maximize the value of existing assets;

Enhance the economic and social well-being of employees, their families and the communities in which you operate – intent is to be a preferred employer and make a positive impact in the communities where we live and work;

Be transparent in reporting and validating progress – intent is to provide stakeholders with thorough and timely information on our progress

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 Continuous Casting Plant** 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 its 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

Steel Continuous Casting Plant would process raw steel scrap in to steel billets. The project would not only focus the construction industry within Major cities of Pakistan but also industrial steel machinery production as well.

The steel industry is considered as the backbone of the modern society and has direct correlation with the industrial development, given its utility in all industrial processes and sectors ranging from infrastructure, construction, automobiles, and transportation and home appliances. The demand for steel follows a cyclical trend and correlates directly with the general economic/industrial conditions prevalent locally and globally.

5.1 Steel products are generally classified into 4 broad categories:

Long steel products, flat steel products, semi-finished products and tubes.

The long products include re-enforcing bars, structural sections, wire rods and forgings. Flat products include Hot Rolled Coil (HRC), Cold Rolled Coil (CRC), Hot Dipped Galvanized Coil (HDGC) and Color Coated Coils. Pipes include seamless pipes and welded pipes. The products which are classified as semi-finished or unfinished are generally not sold to end-consumers and are instead further processed into finished products.

World steel production over the decade has increased significantly from 1,149m tons in 2005, to 1,621m tons in 2015. According to World Steel Association's list of top 10 steel producing countries, China features as the largest steel producing country which generated 804m tons equivalent to roughly 49.6% of the total global steel production. Other major players include Japan (105m tons), India (89m tons), United States (79m tons) and Russia (71m tons). It is pertinent to note that India overtook the United States as the third largest steel producer during 2015¹.

An important factor set to fuel growth is the \$46b China Pakistan Economic Corridor (CPEC) infrastructure project which is expected to increase the demand for steel products significantly. As per Pakistan's Steel Re-Rolling Mills Association (PSRMA), the start of mega development schemes and power projects under (CPEC) will boost the annual demand for steel product by more than 30% to 6 million tons from 4m tons.

¹ World Steel Association

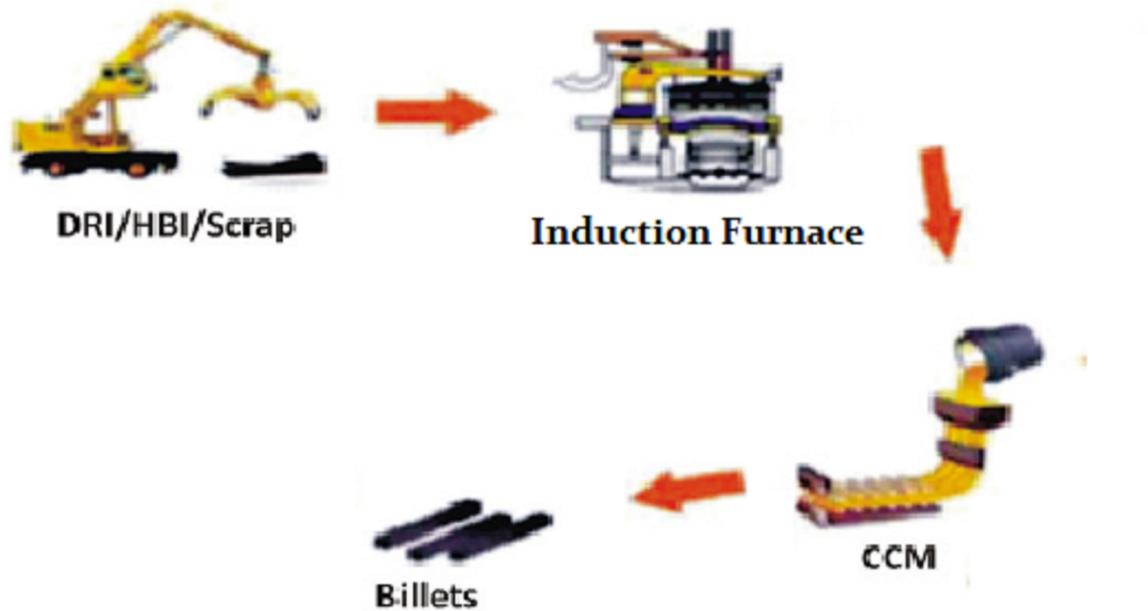
The steel sector is expected to grow as a result of demand generated from the ongoing infrastructure and construction projects.

The Iron & Steel sector recorded a growth of 16.58 percent during Jul-March FY 2017 compared to negative growth of 7.48 percent in the same period last year. The growth in the sector was mainly came from Billets/Ingots 24.86 percent and H/C.R sheets/strips/coil/plats 9.83 percent. The robust construction activities also led to an increase in demand for steel and allied products. The improved energy supplies as well as industry gained some comfort after recovery in global prices provided room to local players to increase their prices².

- **Technology:** This proposed unit with modern processing machine including Induction Steel Melting Furnace in continuous steel casting process.
- **Location:** The unit would be located near steel scrap producing industry at Gadani i.e. Hub or in cities like Lahore, Multan, Karachi, Peshawar, Rawalpindi, and Quetta where imported steel scrap is available easily. And the fact that basic infrastructure should be available for easy transportation of raw material and finished goods.
- **Product:** The unit would initially process Steel Scrap produced at ship breaking yard at Gadani or imported from Iran and other countries.
- **Target Market:** In addition to local markets in Balochistan an enormous Processing / re rolling industry for the Steel Billets exists in Punjab and Karachi etc.
- **Employment Generation:** The proposed project will provide direct employment to 54 people. Financial analysis shows the unit shall be profitable from the very first year of operation

² Pakistan Economic Survey

5.2 Production Process Flow



The production process starts with the inspection of Steel scrap. After Inspection Steel scrap are cut into smaller pieces and then put into the induction furnace manually. In furnace scrap is heated and after a certain temperature is attained they are passed to special casting dye to attain the desired sizes and thickness and then billets are pulled from the furnace on to the conveyor. Finished product are inspected and sent to packing department and then weighted and dispatched.

5.3 Installed and Operational Capacities

Installed capacity of the project will be 54,750 tonnes/ year on the basis of daily two shifts of 8 hours, whereas the production capacity of year 01 will be 32,850 tonnes of steel billets

6 CRITICAL FACTORS

The following factors should be considered thoroughly:

- Efficient and cost effective procurement system for raw material.
- Availability and retention of skilled labour.
- Factory location must take into account the availability of electric power and water supply, proximity to supply sources and markets, and optimum visibility and ease of access by customers.
- Customer services through advice on cost effective transportation and maintaining a list of transporters for the purpose.
- Continuous productivity improvement and energy efficiency through best practices on the floor.
- Entrepreneur's background and technical know-how of the business.
- Ensure the quality of the finished product.
- Ensure availability of quality raw material.
- Avoid stocking huge quantity due to price volatility in raw material and components.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The consumption of steel billets is not concentrated to certain areas or cities rather its demand exist across the country. Therefore, the proposed venture can be established anywhere in the country. But due to the availability of facilities, easy access to raw materials and high demand in industrial areas it is recommended that the proposed business is to be established in major cities i.e. Quetta, Hub, Lahore, Karachi, Gujranwala, Faisalabad, Peshawar etc. and their surrounding areas.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

The potential target customers of the proposed steel billets casting mill will be steel rerolling mills.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyse the commercial viability of Steel Billets Casting Mill. Various cost and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are also attached as annexure.

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 2,160.24 million in the year one. The capacity utilization during year one is

worked out at 60% 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) | 72% |
| Payback Period (yrs.) | 2.21 |
| Net Present Value (Rs.) | 1,416.36 millions |

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. 95,451,526 |
| Bank Loan (50%) | Rs. 95,451,526 |
| 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. |
|-------------------------|------------|
| Capital Cost | |
| Land | 8,310,000 |
| Building/Infrastructure | 38,150,000 |
| Equipment and Machinery | 81,500,000 |
| Furniture & Fixture | 1,120,000 |

| | |
|--------------------------------|--------------------|
| Office Vehicle | 1,483,200 |
| Office Equipment | 368,000 |
| Pre-operating Cost | 18,908,268 |
| Total Capital Cost | 149,839,468 |
| Working Capital | |
| Equipment spare part inventory | 9,078,947 |
| Raw Material Inventory | 29,009,972 |
| Upfront Insurance Payment | 2,474,664 |
| Cash | 500,000 |
| Total Working Capital | 41,063,583 |
| Total Project Cost | 190,903,051 |

9.4 Space Requirement

The space requirement for the proposed **Steel Continuous Casting Plant** is estimated considering various facilities including Management Building, Finished Goods Store, Machine Shed and Ground/Pavement. Details of space requirement is given below;

Table 4: Space Requirement

| Description | Estimated Area (Square feet) |
|--|------------------------------|
| Management building | 500 |
| Foundation and Shed for Machine | 13,500 |
| Cafeteria | 250 |
| Pavement and finished goods storage area | 20,000 |
| Grounds and Raw material storage | 35,000 |
| Total | 69,250 |

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.) |
|----------------------------|----------|-----------------|-------------------|
| Steel Induction Furnace | 1 | 44,800,000 | 44,800,000 |
| Continuous Casting Machine | 1 | 24,000,000 | 24,000,000 |
| Overhaed Crane 15 ton | 1 | 4,500,000 | 4,500,000 |
| Overhaed Crane 20 ton | 1 | 6,500,000 | 6,500,000 |
| Conveyer | 1 | 200,000 | 200,000 |
| Installation | 1 | 1,500,000 | 1,500,000 |
| Total | | | 81,500,000 |

9.6 Furniture & Fixtures Requirement

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

Table 6: Furniture & Fixture

| Description | Quantity / Area | Unit Cost (Rs.) | Total Cost (Rs.) |
|----------------------------|-----------------|-----------------|------------------|
| Carpeting | 500 | 300 | 150,000 |
| Furniture | 1 | 250,000 | 250,000 |
| Electric wiring & lighting | 1 | 600,000 | 600,000 |
| Air Conditioners (1.5 ton) | 1 | 60,000 | 120,000 |
| Total | | | 1,120,000 |

9.7 Office Equipment Requirement

Following office equipment will be required for **Steel Continuous Casting Plant**

Table 7: Office Equipment

| Description | Quantity | Unit Cost (Rs.) | Total Cost (Rs.) |
|----------------------------|----------|-----------------|------------------|
| Desktop Computers with UPS | 2 | 60,000 | 120,000 |
| Printer | 1 | 20,000 | 20,000 |
| Telephone Sets | 4 | 2,000 | 8,000 |
| Photo Copier | 1 | 200,000 | 200,000 |
| Fax Machine | 1 | 20,000 | 20,000 |
| Total | | | 368,000 |

9.8 Human Resource Requirement

In order to run operations of **Steel Continuous Casting Plant** 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 | 100,000 |
| Plant Manager | 1 | 65,000 |
| Plant Supervisor | 2 | 45,000 |
| Furnace Supervisor | 2 | 40,000 |
| CCM Supervisor | 2 | 40,000 |
| Furnace Operator | 4 | 24,000 |
| CCM Operator | 4 | 24,000 |
| Crane Operator | 4 | 24,000 |
| Loading Labour | 20 | 18,000 |
| Casting Labour | 6 | 18,000 |
| Office Boy | 4 | 18,000 |
| Account and Admin Officer | 2 | 30,000 |
| Guards | 2 | 18,000 |
| Total | 54 | 1,339,000 |

9.9 Utilities and other Costs

An essential cost to be borne by the project is the cost of electricity. A dedicated line is necessary for the plant from electricity feeder. The charges on average for a dedicated line is 1,750,000. The electricity expenses are estimated to be around Rs. 13,300,000 per month. Furthermore, promotional expense being essential for marketing of **Steel Continuous Casting Plant** is estimated as 1% of Revenue.

9.10 Revenue Generation

Based on the capacity utilization of 60% for Billets Producing, sales revenue during the first year of operations is estimated as under;

Table 9: Revenue Generation – Year 1

| Description | No. of Units Produced (No.) | Finished Goods Inventory (No.) | Units available for Sale (No.) | Sale Price / unit (Rs.) | Sales Revenue (Rs. mn) |
|---------------|-----------------------------|--------------------------------|--------------------------------|-------------------------|------------------------|
| Billet 80 mm | 9,855 | 821 | 9034 | 64,500 | 582.69 |
| Billet 100 mm | 13,140 | 1,095 | 12,045 | 66,500 | 800.99 |
| Billet 120 mm | 9,855 | 822 | 9033 | 68,900 | 622.37 |

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 Suppliers

| Name of Supplier | Address | Phone | Fax | E-mail | Website |
|--------------------------------------|---|--|-----|----------------------------|-----------------|
| Aziz Sons | Abdul Qayyum Road Badami Bagh Lahore, PAKISTAN | 0300- 9418715 0300- 4812652 0321- 8888038 | | azizsons786 @gmail.com, | |
| Pakistan Engineering Company Limited | 6/7-Sir Ganga Ram Trust Building, Shahrah-e-Quaid-e-Azam, Lahore | 042- 37320225-7 | | info@peco.com.pk | www.peco.com.pk |

10.2 Technical Experts / Consultants

| Name of Expert/Organization | Address | Phone | Fax | E-mail | Website |
|-----------------------------|--|-------------|-----|--------|---------|
| Mr. Amin Ullah | Sibi Road Quetta | 03337814351 | | | |
| Mr. Asmat Pervaiz Malik | Usman Gunj, Badami Bagh, Lahore. | 042-6275536 | | | |
| Mr. Muhammad Latif Chaudhry | S.I.T.E., Hyderabad | 021-2566057 | | | |

11 USEFUL WEB LINKS

Links of Federal & Provincial Government, Semi Government and other (sector & Cluster based) Development organizations are to be given under this heading so to enable potential investors to get benefit from the services offered. Web links of various organizations are given as example however, links of only relevant organizations should be given;

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

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 | 2,160,243,375 | 2,551,153,502 | 2,886,708,802 | 3,259,625,567 | 3,673,734,078 | 4,133,238,348 | 4,642,751,402 | 5,207,333,820 | 5,832,535,815 | 6,524,443,194 |
| Cost of goods sold | 1,877,634,734 | 2,160,739,536 | 2,382,783,393 | 2,622,554,673 | 2,881,380,683 | 3,160,689,666 | 3,462,018,985 | 3,787,024,025 | 4,137,487,891 | 4,515,331,967 |
| Gross Profit | 282,608,641 | 390,413,966 | 503,925,409 | 637,070,894 | 792,353,395 | 972,548,682 | 1,180,732,417 | 1,420,309,794 | 1,695,047,924 | 2,009,111,227 |
| <i>General administration & selling expenses</i> | | | | | | | | | | |
| Administration expense | 7,345,800 | 8,080,380 | 8,888,418 | 9,777,260 | 10,754,986 | 11,830,484 | 13,013,533 | 14,314,886 | 15,746,375 | 17,321,012 |
| Rental expense | - | - | - | - | - | - | - | - | - | - |
| Utilities expense | 168,000,000 | 184,800,000 | 203,280,000 | 223,608,000 | 245,968,800 | 270,565,680 | 297,622,248 | 327,384,473 | 360,122,920 | 396,135,212 |
| Travelling & Comm. expense (phone, fax, etc.) | 489,720 | 538,692 | 592,561 | 651,817 | 716,999 | 788,699 | 867,569 | 954,326 | 1,049,758 | 1,154,734 |
| Office vehicles running expense | 29,664 | 32,630 | 35,893 | 39,483 | 43,431 | 47,774 | 52,552 | 57,807 | 63,587 | 69,946 |
| Office expenses (stationary, etc.) | 69,960 | 76,956 | 84,652 | 93,117 | 102,428 | 112,671 | 123,938 | 136,332 | 149,965 | 164,962 |
| Promotional expense | 6,480,730 | 7,653,461 | 8,660,126 | 9,778,877 | 11,021,202 | 12,399,715 | 13,928,254 | 15,622,001 | 17,497,607 | 19,573,330 |
| Insurance expense | 2,474,664 | 2,224,231 | 1,973,798 | 1,723,366 | 1,472,933 | 1,270,274 | 1,016,219 | 762,165 | 508,110 | 254,055 |
| Professional fees (legal, audit, etc.) | 15,121,704 | 17,858,075 | 20,206,962 | 22,817,379 | 25,716,139 | 28,932,668 | 32,499,260 | 36,451,337 | 40,827,751 | 45,671,102 |
| Depreciation expense | 12,410,440 | 12,410,440 | 12,410,440 | 12,410,440 | 12,410,440 | 12,591,542 | 12,591,542 | 12,591,542 | 12,591,542 | 12,591,542 |
| Amortization expense | 3,781,654 | 3,781,654 | 3,781,654 | 3,781,654 | 3,781,654 | - | - | - | - | - |
| Property tax expense | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous expense | 2,160,243 | 2,551,154 | 2,886,709 | 3,259,626 | 3,673,734 | 4,133,238 | 4,642,751 | 5,207,334 | 5,832,536 | 6,524,443 |
| Subtotal | 218,364,579 | 240,007,672 | 262,801,213 | 287,941,017 | 315,662,746 | 342,672,746 | 376,357,866 | 413,482,202 | 454,390,151 | 499,460,338 |
| Operating Income | 64,244,063 | 150,406,294 | 241,124,196 | 349,129,877 | 476,690,650 | 629,875,935 | 804,374,551 | 1,006,827,593 | 1,240,657,773 | 1,509,650,889 |
| Other income | - | - | - | - | - | - | - | - | - | - |
| Gain / (loss) on sale of assets | - | - | - | - | 593,280 | - | - | - | - | - |
| Earnings Before Interest & Taxes | 64,244,063 | 150,406,294 | 241,124,196 | 349,129,877 | 477,283,930 | 629,875,935 | 804,374,551 | 1,006,827,593 | 1,240,657,773 | 1,509,650,889 |
| Interest expense | 13,286,230 | 9,398,002 | 7,250,676 | 4,733,429 | 1,782,534 | - | - | - | - | - |
| Earnings Before Tax | 50,957,833 | 141,008,292 | 233,873,520 | 344,396,448 | 475,501,396 | 629,875,935 | 804,374,551 | 1,006,827,593 | 1,240,657,773 | 1,509,650,889 |
| Tax | 16,306,506 | 45,122,654 | 74,839,526 | 110,206,863 | 152,160,447 | 201,560,299 | 257,399,856 | 322,184,830 | 397,010,487 | 483,088,284 |
| NET PROFIT/(LOSS) AFTER TAX | 34,651,326 | 95,885,639 | 159,033,994 | 234,189,585 | 323,340,949 | 428,315,636 | 546,974,695 | 684,642,763 | 843,647,285 | 1,026,562,604 |
| Balance brought forward | - | 34,651,326 | 130,536,965 | 289,570,959 | 523,760,543 | 847,101,493 | 1,275,417,129 | 1,822,391,823 | 2,507,034,586 | 3,350,681,872 |
| Total profit available for appropriation | 34,651,326 | 130,536,965 | 289,570,959 | 523,760,543 | 847,101,493 | 1,275,417,129 | 1,822,391,823 | 2,507,034,586 | 3,350,681,872 | 4,377,244,476 |
| Dividend | - | - | - | - | - | - | - | - | - | - |
| Balance carried forward | 34,651,326 | 130,536,965 | 289,570,959 | 523,760,543 | 847,101,493 | 1,275,417,129 | 1,822,391,823 | 2,507,034,586 | 3,350,681,872 | 4,377,244,476 |

12.2 Balance Sheet

| Statement Summaries | | | | | | | | | | | SMEDA |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------|
| Balance Sheet | | | | | | | | | | | |
| | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Rs. in actuals Year 10 |
| Assets | | | | | | | | | | | |
| <i>Current assets</i> | | | | | | | | | | | |
| Cash & Bank | 500,000 | 563,112 | 97,999,485 | 243,084,116 | 460,595,318 | 759,550,376 | 1,179,769,805 | 1,713,060,499 | 2,380,645,171 | 3,203,415,580 | 4,355,131,769 |
| Accounts receivable | - | 88,777,125 | 96,809,525 | 111,736,897 | 126,294,542 | 142,466,294 | 160,417,242 | 180,328,557 | 202,399,011 | 226,846,636 | 253,910,528 |
| Finished goods inventory | - | 81,636,293 | 90,209,802 | 99,471,033 | 109,471,429 | 120,266,324 | 131,915,262 | 144,482,333 | 158,036,551 | 172,652,252 | 188,409,535 |
| Equipment spare part inventory | 9,078,947 | 11,357,211 | 13,612,576 | 16,281,985 | 19,437,912 | 23,165,123 | 27,562,706 | 32,746,442 | 38,851,553 | 46,035,906 | - |
| Raw material inventory | 29,009,972 | 34,640,177 | 39,631,943 | 45,249,000 | 51,564,151 | 58,658,302 | 66,621,338 | 75,553,089 | 85,564,399 | 96,778,308 | - |
| Pre-paid annual land lease | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid building rent | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid lease interest | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid insurance | 2,474,664 | 2,224,231 | 1,973,798 | 1,723,366 | 1,472,933 | 1,270,274 | 1,016,219 | 762,165 | 508,110 | 254,055 | - |
| Total Current Assets | 41,063,583 | 219,198,148 | 340,237,130 | 517,546,397 | 768,836,285 | 1,105,376,694 | 1,567,302,572 | 2,146,933,084 | 2,866,004,795 | 3,745,982,737 | 4,797,451,831 |
| <i>Fixed assets</i> | | | | | | | | | | | |
| Land | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 | 8,310,000 |
| Building/Infrastructure | 38,150,000 | 34,335,000 | 30,520,000 | 26,705,000 | 22,890,000 | 19,075,000 | 15,260,000 | 11,445,000 | 7,630,000 | 3,815,000 | - |
| Machinery & equipment | 81,500,000 | 73,350,000 | 65,200,000 | 57,050,000 | 48,900,000 | 40,750,000 | 32,600,000 | 24,450,000 | 16,300,000 | 8,150,000 | - |
| Furniture & fixtures | 1,120,000 | 1,008,000 | 896,000 | 784,000 | 672,000 | 560,000 | 448,000 | 336,000 | 224,000 | 112,000 | - |
| Office vehicles | 1,483,200 | 1,186,560 | 889,920 | 593,280 | 296,640 | 2,388,708 | 1,910,967 | 1,433,225 | 955,483 | 477,742 | - |
| Office equipment | 368,000 | 331,200 | 294,400 | 257,600 | 220,800 | 184,000 | 147,200 | 110,400 | 73,600 | 36,800 | - |
| Total Fixed Assets | 130,931,200 | 118,520,760 | 106,110,320 | 93,699,880 | 81,289,440 | 71,267,708 | 58,676,167 | 46,084,625 | 33,493,083 | 20,901,542 | 8,310,000 |
| <i>Intangible assets</i> | | | | | | | | | | | |
| Pre-operation costs | 18,908,268 | 15,126,614 | 11,344,961 | 7,563,307 | 3,781,654 | - | - | - | - | - | - |
| Legal, licensing, & training costs | - | - | - | - | - | - | - | - | - | - | - |
| Total Intangible Assets | 18,908,268 | 15,126,614 | 11,344,961 | 7,563,307 | 3,781,654 | - | - | - | - | - | - |
| TOTAL ASSETS | 190,903,051 | 352,845,523 | 457,692,410 | 618,809,584 | 853,907,378 | 1,176,644,402 | 1,625,978,739 | 2,193,017,709 | 2,899,497,878 | 3,766,884,278 | 4,805,761,831 |
| Liabilities & Shareholders' Equity | | | | | | | | | | | |
| <i>Current liabilities</i> | | | | | | | | | | | |
| Accounts payable | - | 148,634,398 | 170,670,873 | 187,976,606 | 206,624,615 | 226,711,384 | 248,340,485 | 271,623,160 | 296,678,966 | 323,636,481 | 339,169,830 |
| Export re-finance facility | - | - | - | - | - | - | - | - | - | - | - |
| Short term debt | - | - | - | - | - | - | - | - | - | - | - |
| Other liabilities | - | - | - | - | - | - | - | - | - | - | - |
| Total Current Liabilities | - | 148,634,398 | 170,670,873 | 187,976,606 | 206,624,615 | 226,711,384 | 248,340,485 | 271,623,160 | 296,678,966 | 323,636,481 | 339,169,830 |
| <i>Other liabilities</i> | | | | | | | | | | | |
| Lease payable | - | - | - | - | - | - | - | - | - | - | - |
| Deferred tax | - | 9,821,600 | 9,211,200 | 8,600,800 | 7,990,400 | 7,380,000 | 6,769,600 | 3,551,200 | 332,800 | (2,885,600) | (6,104,000) |
| Long term debt | 95,451,526 | 64,286,673 | 51,821,846 | 37,209,694 | 20,080,295 | - | - | - | - | - | - |
| Total Long Term Liabilities | 95,451,526 | 74,108,273 | 61,033,046 | 45,810,494 | 28,070,695 | 7,380,000 | 6,769,600 | 3,551,200 | 332,800 | (2,885,600) | (6,104,000) |
| <i>Shareholders' equity</i> | | | | | | | | | | | |
| Paid-up capital | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 | 95,451,526 |
| Retained earnings | - | 34,651,326 | 130,536,965 | 289,570,959 | 523,760,543 | 847,101,493 | 1,275,417,129 | 1,822,391,823 | 2,507,034,586 | 3,350,681,872 | 4,377,244,476 |
| Total Equity | 95,451,526 | 130,102,852 | 225,988,491 | 385,022,484 | 619,212,069 | 942,553,018 | 1,370,868,654 | 1,917,843,349 | 2,602,486,112 | 3,446,133,397 | 4,472,696,002 |
| TOTAL CAPITAL AND LIABILITIES | 190,903,051 | 352,845,523 | 457,692,410 | 618,809,584 | 853,907,378 | 1,176,644,402 | 1,625,978,739 | 2,193,017,709 | 2,899,497,878 | 3,766,884,278 | 4,805,761,831 |

Note: Total assets value will differ from project cost due to first installment of leases paid at the start of year 0

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 | Rs. in actuals Year 10 |
| <i>Operating activities</i> | | | | | | | | | | | |
| Net profit | - | 34,651,326 | 95,885,639 | 159,033,994 | 234,189,585 | 323,340,949 | 428,315,636 | 546,974,695 | 684,642,763 | 843,647,285 | 1,026,562,604 |
| Add: depreciation expense | - | 12,410,440 | 12,410,440 | 12,410,440 | 12,410,440 | 12,410,440 | 12,591,542 | 12,591,542 | 12,591,542 | 12,591,542 | 12,591,542 |
| amortization expense | - | 3,781,654 | 3,781,654 | 3,781,654 | 3,781,654 | 3,781,654 | - | - | - | - | - |
| Deferred income tax | - | 9,821,600 | (610,400) | (610,400) | (610,400) | (610,400) | (610,400) | (3,218,400) | (3,218,400) | (3,218,400) | (3,218,400) |
| Accounts receivable | - | (88,777,125) | (8,032,400) | (14,927,372) | (14,557,645) | (16,171,752) | (17,950,948) | (19,911,315) | (22,070,455) | (24,447,625) | (27,063,891) |
| Finished good inventory | - | (81,636,293) | (8,573,509) | (9,261,232) | (10,000,396) | (10,794,895) | (11,648,937) | (12,567,072) | (13,554,218) | (14,615,701) | (15,757,284) |
| Equipment inventory | (9,078,947) | (2,278,263) | (2,255,366) | (2,669,408) | (3,155,927) | (3,727,211) | (4,397,583) | (5,183,735) | (6,105,111) | (7,184,353) | 46,035,906 |
| Raw material inventory | (29,009,972) | (5,630,205) | (4,991,767) | (5,617,057) | (6,315,151) | (7,094,151) | (7,963,036) | (8,931,751) | (10,011,310) | (11,213,909) | 96,778,308 |
| Pre-paid building rent | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid lease interest | - | - | - | - | - | - | - | - | - | - | - |
| Advance insurance premium | (2,474,664) | 250,433 | 250,433 | 250,433 | 250,433 | 202,659 | 254,055 | 254,055 | 254,055 | 254,055 | 254,055 |
| Accounts payable | - | 148,634,398 | 22,036,475 | 17,305,732 | 18,648,009 | 20,086,769 | 21,629,101 | 23,282,675 | 25,055,806 | 26,957,515 | 15,533,349 |
| Other liabilities | - | - | - | - | - | - | - | - | - | - | - |
| Cash provided by operations | (40,563,583) | 31,227,965 | 109,901,199 | 159,696,784 | 234,640,601 | 321,424,061 | 420,219,429 | 533,290,694 | 667,584,672 | 822,770,409 | 1,151,716,189 |
| <i>Financing activities</i> | | | | | | | | | | | |
| Change in long term debt | 95,451,526 | (31,164,852) | (12,464,827) | (14,612,152) | (17,129,399) | (20,080,295) | - | - | - | - | - |
| 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 | 95,451,526 | - | - | - | - | - | - | - | - | - | - |
| Purchase of (treasury) shares | - | - | - | - | - | - | - | - | - | - | - |
| Cash provided by / (used for) financing | 190,903,051 | (31,164,852) | (12,464,827) | (14,612,152) | (17,129,399) | (20,080,295) | - | - | - | - | - |
| <i>Investing activities</i> | | | | | | | | | | | |
| Capital expenditure | (149,839,468) | - | - | - | - | (2,388,708) | - | - | - | - | - |
| Acquisitions | - | - | - | - | - | - | - | - | - | - | - |
| Cash (used for) / provided by investing | (149,839,468) | - | - | - | - | (2,388,708) | - | - | - | - | - |
| NET CASH | 500,000 | 63,112 | 97,436,373 | 145,084,631 | 217,511,202 | 298,955,058 | 420,219,429 | 533,290,694 | 667,584,672 | 822,770,409 | 1,151,716,189 |
| Cash balance brought forward | | 500,000 | 563,112 | 97,999,485 | 243,084,116 | 460,595,318 | 759,550,376 | 1,179,769,805 | 1,713,060,499 | 2,380,645,171 | 3,203,415,580 |
| Cash available for appropriation | 500,000 | 563,112 | 97,999,485 | 243,084,116 | 460,595,318 | 759,550,376 | 1,179,769,805 | 1,713,060,499 | 2,380,645,171 | 3,203,415,580 | 4,355,131,769 |
| Dividend | - | - | - | - | - | - | - | - | - | - | - |
| Cash carried forward | 500,000 | 563,112 | 97,999,485 | 243,084,116 | 460,595,318 | 759,550,376 | 1,179,769,805 | 1,713,060,499 | 2,380,645,171 | 3,203,415,580 | 4,355,131,769 |

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 the unit per day | 175.48 |
| Total Production of the unit per month | 4562.48 |
| Total Production of the unit per year (100%) | 54,750 |

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 |
| | |

Small and Medium Enterprises Development Authority

HEAD OFFICE

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore
Tel: (92 42) 111 111 456, Fax: (92 42) 36304926-7

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| REGIONAL OFFICE PUNJAB | REGIONAL OFFICE SINDH | REGIONAL OFFICE KPK | REGIONAL OFFICE BALOCHISTAN |
|---|---|---|--|
| 3 rd Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road Lahore, Tel: (042) 111-111-456 Fax: (042) 36304926-7 helpdesk.punjab@smeda.org.pk | 5 TH Floor, Bahria Complex II, M.T. Khan Road, Karachi. Tel: (021) 111-111-456 Fax: (021) 5610572 helpdesk-khi@smeda.org.pk | Ground Floor State Life Building The Mall, Peshawar. Tel: (091) 9213046-47 Fax: (091) 286908 helpdesk-pew@smeda.org.pk | Bungalow No. 15-A Chaman Housing Scheme Airport Road, Quetta. Tel: (081) 831623, 831702 Fax: (081) 831922 helpdesk-qta@smeda.org.pk |