



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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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

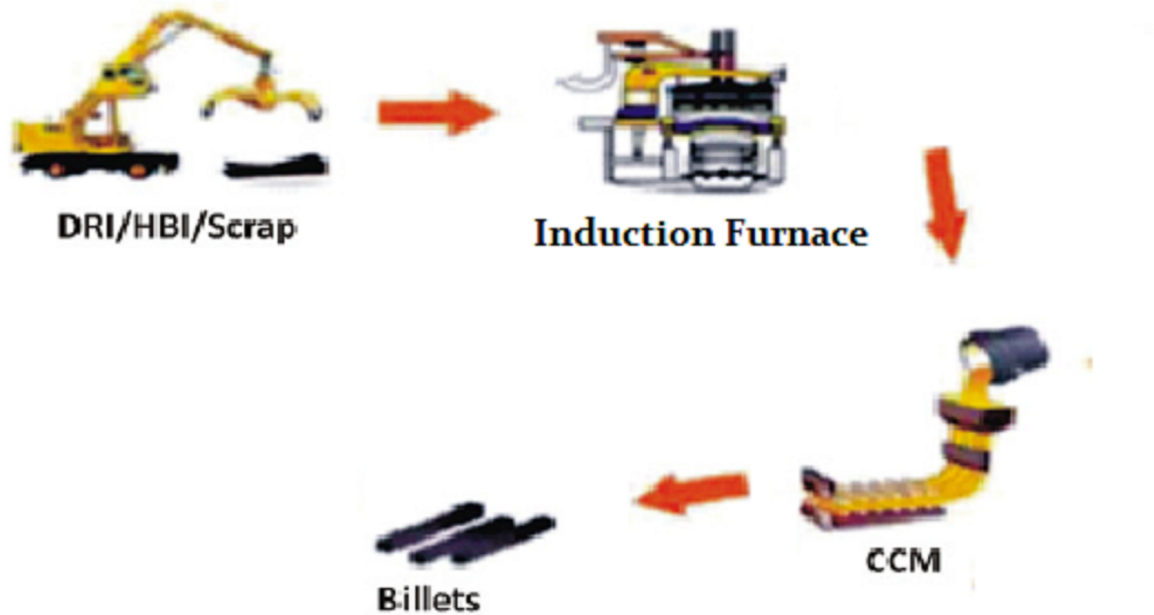
The steel sector is expected to grow as a result of demand generated from the ongoing infrastructure and construction projects.

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 die 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										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals 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	-	-	-	-	593,280	-	-	-	-	-
Gain / (loss) on sale of assets	-	-	-	-	-	-	-	-	-	-
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											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
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
<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 Cash Flow Statement											SMEDA
	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

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