



**Pre-feasibility Study**

# **LPG STORAGE AND FILLING STATION**

**September 2023**

“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

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### **Document Control**

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## 2 EXECUTIVE SUMMARY

LPG (Liquefied Petroleum Gas) is the generic name for commercial propane and commercial butane. These are hydrocarbon products produced by the oil and gas industries. LPG is used as fuel for cooking and heating in the rural and northern areas of Pakistan. It is also used as fuel in vehicles particularly taxi and rickshaws. The demand of LPG in major cities is consistent throughout the year and increases during winters in Punjab and Northern Pakistan.

LPG production is a capital intensive business and requires huge investment. However, LPG Storage and Filling Stations comparatively requires low investment and can be executed on small levels. This particular pre-feasibility study provides basic information for setting up 'LPG Storage and Filling Station, in any major city of Pakistan. The proposed LPG Storage and Filling Station will setup a bottling plant with storage tanks and filling dispensers.

The proposed LPG Storage and Filling Station will have a capacity of filling and distributing around 5,400 tons of LPG annually. The starting operational capacity is assumed at 60% (i.e. 3,240 tons) with a gradual increase of 10% in subsequent years. This production capacity is estimated to be economically viable and justifies the project costs. However, entrepreneur's knowledge of industry, timely allocation of LPG quota, and strong linkage with sub-distributors and retailers network are key factors for the success of this business.

The proposed LPG plant entails a total investment of Rs. 119.98 million. This includes capital investment of Rs. 106.34 million and Rs. 13.64 million as initial working capital. The project assumed to be financed through 100% equity. The Net Present Value (NPV) of the project is Rs. 10.66 million with an Internal Rate of Return (IRR) of 32% and a Payback Period of 3.93 years. The project will provide employment opportunities to 28 individuals including owner / manager. The legal business status of this project is proposed as 'Sole Proprietorship'.

## 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 **LPG Storage and Filling Station** 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

LPG (Liquefied Petroleum Gas) is the generic name for commercial propane and commercial butane. These are hydrocarbon products produced by the oil and gas industries. Commercial Propane predominantly consists of hydrocarbons containing three carbon atoms, mainly propane (C<sub>3</sub>H<sub>8</sub>). LPG is used as fuel for cooking and heating as a replacement of conventional fuels like coal, firewood, kerosene, dung cake etc, in rural, peri-urban and the northern areas of Pakistan. It is also used as fuel in vehicles particularly taxi and Rickshaws.

LPG production is a capital intensive business and requires huge investment depending upon the technology and methodology employed for the extraction and processing of LPG. However, LPG Storage and Filling Station needs comparatively less investment and can be considered by the Small and Medium scale investors. The proposed project envisages setting up of a LPG Storage and Filling Station which is generally known as LPG bottling plant business.

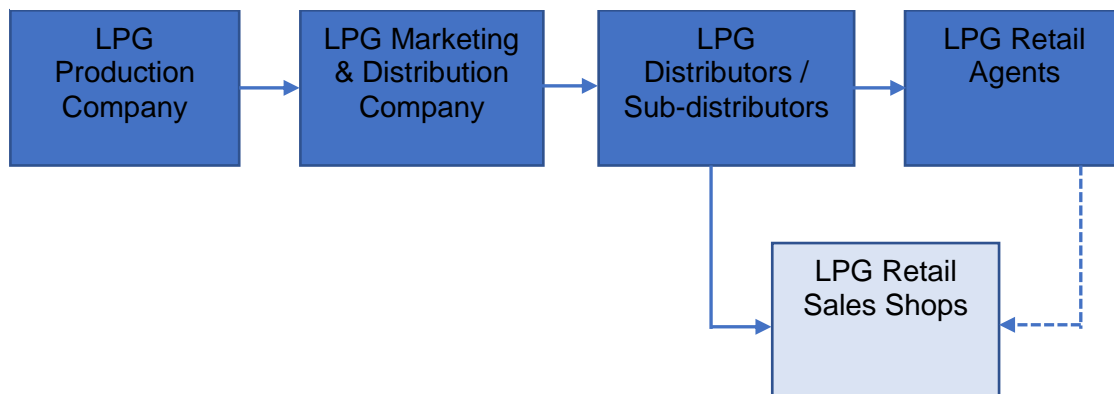
LPG Storage and Filling Stations will setup a bottling plant with 2 storage tanks (60 tonnes of storage capacity each) and filling dispensers. The business facility will hold a certain quantity of LPG quota, allocated by one of the LPG producer and this allocated LPG will be supplied to the proposed marketing and Distribution Company through Bowser (gas supplying trucks). The company will store this LPG in its storage facility from where, supply to the sub-distributors will be made. Sub-distributors will bring their cylinders and get them filled against payment.

The legal status of the business in this document has been kept as 'Sole Proprietorship'.

### 5.1 LPG Distribution Process (Supply Chain)

Typical distribution process and supply chain of LPG has been illustrated in the following diagram:

**Figure 1: LPG Distribution Process Flow**



Marketing and distribution companies uplift LPG from the production site using own/rented bowzers and store it at their storage site. In Karachi such sites are located at Port Qasim, Hub, Super Highway etc. Marketing/distribution companies which are also known as bottling companies fill gas cylinders with LPG and store them for distribution.

Appointed Distributors/Sub-distributors bring their gas cylinders on their own vehicles on the marketing company site, get them filled (or exchange them with the filled cylinders), make payment and carry their cylinders on the distribution point.

From distribution points cylinders are supplied to the retailers or agents from where it is provided to the end user. In case of household or commercial use small capacity cylinders (normally 6 kg to 11.8 kg) are further filled and supplied to the users directly by the sub-distributor. This filling process also be carried out at Filling station site and sub-distributors uplift cylinders from the site and store them at their location, from where they are distributed among households and commercial users i.e., hotels etc.

## 5.2 Installed And Operational Capacities

For this project it is assumed that total capacity of LPG Storage and Filling Station is 5,400 tonnes per year, where initial capacity utilization will be 60% with an annual growth of 10%. Maximum capacity utilization of the project is assumed at 100%.

**Table 1 Installed and Operational Capacity**

Description	Production Percentage	Installed Capacity	Operational Capacity (Year 1)
LPG (Tons)		5,400	3,240
<b>No. of Cylinder Refilling</b>			
Domestic Cylinder (11.8 Kg)	60%	274,576	164,746
Commercial Cylinder (45.4)	40%	47,577	28,546

## 6 CRITICAL SUCCESS FACTORS

- ⇒ LPG quota allocation: Most of the existing plants with fully operational facilities are out of work because of delays in their quota allocation by the LPG producers.
- ⇒ Dealing with the sub-distributors: Sub-distributors play important role in the successful operations of a LPG Marketing company because they distribute gas among agency holders who further sale it to the retailers.
- ⇒ Survival during the critical period when cheap Irani LPG is available in the market: In such circumstances when cheap Iranian gas is available, a LPG marketing and distribution company may face a situation where it would be

forced to lift its quota as per agreement from the producer at a higher cost and sell it at lower price.

⇒ High service quality of Bowzer operators will ensure efficient operations.

## **7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT**

Location for setting up a LPG distribution plant has imperial implications on fixed costs, operational costs and procedures. The proposed LPG plant can be established at Port Qasim, Karachi in Sindh, and Multan Road in Punjab. These locations have basic infrastructure and facilities required for LPG bottling and distribution plant, however for the purpose of this pre-feasibility study Multan Road Lahore has been assumed.

## **8 POTENTIAL TARGET CUSTOMERS / MARKETS**

The potential target customers for the unit are general household consumers and hospitality sector as commercial users, e.g. Local Restaurants, Hotels, Food Points etc, across Pakistan. The demand of LPG in the major cities is consistent throughout the year and increases during winters in Punjab and Northern Pakistan.

Accordingly, areas having presence of middle-income groups in the urban cities and commercial centers will be an ideal location for the distribution of LPG. Subsequently, LPG has a huge demand in the Northren Areas, especially from the Hospitality Sector.

## **9 PROJECT COST SUMMARY**

A detailed financial model has been developed to analyze the commercial viability of LPG Storage and Filling station business. 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 attached as annexures.

### **9.1 Project Economics**

All the figures in this financial model have been calculated for estimated sales revenue of Rs. 755 million in the year one. The capacity utilization during year one is worked out at 60% with 10% increase in subsequent years up to the maximum capacity utilization of 100%.



The following table shows Internal Rate of Return, Payback Period and Net Present Value of the proposed venture.

**Table 2: Project Economics (100% Equity Based)**

Description	Details
Internal Rate of Return (IRR)	32%
Payback Period (Yrs.)	3.93
Net Present Value (Rs.)	10,656,269

Calculation of break-even analysis is as follows:

**Table 3: Breakeven (100% Equity Based)**

BREAKEVEN ANALYSIS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Break-Even Revenue	471,788,741	505,640,740	542,784,686	583,835,047	628,506,045	670,205,575	724,382,934	783,397,713	848,209,257	919,715,023
Break-Even (Sale of LPG in Tons)	2,024	1,972	1,925	1,882	1,842	1,786	1,755	1,725	1,698	1,674
Margin of Safety	38%	48%	55%	61%	66%	67%	68%	68%	69%	69%

However, for the purposes of further explanation the Project Economics based on Debt:Equity (i.e. 50:50) Model has also been computed. On the basis of Debt:Equity model the Internal Rate of Return, Payback Period and Net Present Value of the proposed project are provide in the table below:

**Table 4: Project Economics Based on Debt (50%) : Equity (50%)**

Description	Details
Internal Rate of Return (IRR)	33%
Payback Period (Yrs.)	3.78
Net Present Value (Rs.)	18,069,739

The financial assumptions for Debt:Equity are as follows:

**Table 5: Financial Assumptions for Debt:Equity Model**

Description	Details
Debt	50%
Equity	50%
Interest Rate on Debt	28.16%
Debt Tenure	5 Years

Debt Payment / Year

12

The projected Income Statement, Cash Flow Statement and Balance Sheet enclosed as annexures are based on 100% Equity Based Business Model.

## 9.2 Project Cost

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

**Table 6: Project Cost**

Description	Amount
<b>Capital Cost</b>	
Land	12,000,000
Building/Infrastructure	25,615,200
Machinery & equipment	58,000,000
Furniture & fixtures	1,415,000
Office equipment	1,152,000
Computer equipment	325,000
Pre-operating costs	2,520,000
Licensing & Legal fee	5,310,000
<b>Total Capital Costs</b>	<b>106,337,200</b>
<b>Working Capital</b>	
Equipment spare part inventory	24,167
Raw material inventory	11,708,604
Cash	1,910,240
<b>Total Working Capital</b>	<b>13,643,011</b>
<b>Total Investment</b>	<b>119,980,211</b>

## 9.3 Space Requirement

The space requirement for the proposed LPG Storage and Filling Station is estimated considering various facilities including filling platform, labour room, bowser platform etc. An estimated land of around 12 Kanals will be required for the proposed venture. The land is proposed to be purchased at Rs. 12 million. Details of the space requirement and cost related to construction of building is given below.

**Table 7: Space Requirement**

Description	Estimated Area (Sq. ft.)	Unit Cost (Rs.)	Total Cost (Rs.)
CEO Office	224	4,500	1,008,000
Plant In-charge - Engineer Office	120	4,500	540,000
Accounts Office	168	4,500	756,000
Filling Platform	3,200	2,500	8,000,000
Bowser Platform	960	2,500	2,400,000
Water Tank Firefighting	200	6,800	1,360,000
Water Tank Office	100	4,500	450,000
Labor Rooms	504	4,200	2,116,800
Retiring Room	120	4,200	504,000
Gate Room	64	3,600	230,400
Store	64	3,600	230,400
Kitchen	36	3,600	129,600
Wash Room	216	3,600	777,600
Parking Area	576	1,500	864,000
Boundry Wall	1,020	3,800	3,876,000
Open Space	47,448	50	2,372,400
<b>Total Infrastructure</b>	<b>49,136</b>		<b>25,615,200</b>

#### 9.4 Machinery & Equipment Requirement

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

**Table 8: Machinery & Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Storage Tank - 60 tonne	2	12,000,000	24,000,000
Dispenser	4	600,000	2,400,000
Pumps	2	1,600,000	3,200,000
Cylinders (11.8 KG)	500	10,000	5,000,000
Cylinders (45.4 KG)	500	23,500	11,750,000
Support Structure - Piping & Valves	1	6,500,000	6,500,000
Fire Fighting Equipment	1	5,000,000	5,000,000

Security Equipment	1	150,000	150,000
<b>Total</b>			<b>58,000,000</b>

## 9.5 Furniture & Fixtures Requirement

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

**Table 9: Furniture & Fixture**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
<b>CEO Office</b>			
Table & Chairs	1	50,000	50,000
Visitor Chairs	2	8,000	16,000
Sofa Set	1	50,000	50,000
<b>Plant In-charge - Engineer</b>			
Table & Chairs	1	45,000	45,000
Visitor Chairs	2	8,000	16,000
Cupboard	1	25,000	25,000
<b>Accounts Office</b>			
Table & Chairs	1	40,000	40,000
Visitor Chairs	2	8,000	16,000
Cupboard	1	25,000	25,000
Miscellaneous Furniture	1	250,000	250,000
Bracket Fans	9	7,500	67,500
Exhaust Fans	4	5,000	20,000
LED Bulbs (18 Watts)	29	500	14,500
Security Lights	8	10,000	80,000
Air conditioners (1.5 ton Split)	4	175,000	700,000
<b>Total Furniture &amp; Fixtures</b>			<b>1,415,000</b>

## 9.6 Office and Other Equipment Requirement

Following office and other equipment will be required for the project are given below.

**Table 10: Office Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptops	1	120,000	120,000
Fridge	1	125,000	125,000
Desktop Computer	2	60,000	120,000
Computer printer	2	30,000	60,000
Water Dispenser	1	40,000	40,000
Scanner	1	25,000	25,000
Telephone	2	3,500	7,000
Generator	1	980,000	980,000
<b>Total</b>			<b>1,477,000</b>

### 9.7 Human Resource Requirement

In order to run operations of LPG Storage and Filling station smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

**Table 11: Human Resource Requirement**

Description	No. of Employees	Monthly Salary per person (Rs.)
Chief Executive Officer	1	200,000
Plant In charge – Engineer	1	150,000
Business Development Executive	1	140,000
Accountant	1	65,000
Technical Staff	2	70,000
Operators - Dispenser	4	50,000
Guard	2	35,000
Gate Keeper	1	35,000
Office Assistant	2	50,000
Helpers	12	35,000
Office Boys	1	35,000
<b>Total</b>	<b>28</b>	

## 9.8 Licensing and Legal Requirements

Licensing and registration from various government authorities / departments will be required before starting operations of the proposed project. An estimated total cost of Rs. 5.31 million will be incurred on obtaining these licenses from the following Government authorities;

- Oil and Gas Regularity Authority (OGRA), Pakistan

Any company willing to distribute and market Oil and Gas needs to obtain a license from OGRA. OGRA issues provisional licenses to technically and financially sound applicants/ parties for construction of works commensurate with their work program, for a period of one year. OGRA inducts reputable third party inspectors to check / monitor compliance with the terms and conditions of licenses. The licenses can be cancelled in case of non-compliance with licensing terms and conditions.

- License and clearance certification from Explosive Control Department
- Environmental Department, etc.

## 9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity. The electricity expenses are estimated to be around Rs. 144,448 per month.

## 9.10 Revenue Generation

Based on the capacity utilization of 60%, sales revenue during the first year of operations is provided in the table below.

**Table 12: Revenue Generation – Year 1**

Description	No. of cylinder available for Sale	Sale Price / unit (Rs.)	Sales Revenue (Rs.)
Domestic Cylinder (11.8 Kg)	164,746	2,750	453,049,200
Commercial Cylinder (45.4)	28,546	10,580	302,032,800
<b>Total</b>	<b>193,292</b>		<b>755,082,000</b>

## 10 CONTACT DETAILS

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

**Table 13: Names of Suppliers**

<b>Name of Supplier</b>	<b>Address</b>	<b>Phone</b>
Al-Awan Gas Traders Pakistan	206-C Behind Zohaib Petroleum, Amir Town, East Canal Road, Faisalabad, Pakistan	0313 7128811
Hi-Tek Manufacturing (Pvt) Limited	House # 1, Service Lane, Quaid-e-Azam Interchange, Ring Road, Lahore. 53704, Pakistan.	0423-6556686 0423-6550053
Haier Pakistan – Lahore	8th Floor, Mega Tower, Main Boulevard Gulberg II	042-111142437
Woodpecker		0331-8999222, 0331-7151566
Craft Vision		042-34004994 0324-4790092

**11 USEFUL WEB LINK**

Small & Medium Enterprises Development Authority (SMEDA)	<a href="http://www.smeda.org.pk">www.smeda.org.pk</a>
Government of Pakistan	<a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>
Ministry of Industries & Production	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
Government of Punjab	<a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>
Government of Sindh	<a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>
Government of Khyber Pakhtunkhwa	<a href="http://www.khyberpakhtunkhwa.gov.pk">www.khyberpakhtunkhwa.gov.pk</a>
Government of Balochistan	<a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>
Government of Gilgit Baltistan	<a href="http://www.gilgitbaltistan.gov.pk">www.gilgitbaltistan.gov.pk</a>
Government of Azad Jamu Kashmir	<a href="http://www.ajk.gov.pk">www.ajk.gov.pk</a>
Trade Development Authority of Pakistan (TDAP)	<a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>
Security and Exchange Commission of Pakistan (SECP)	<a href="http://www.secp.gov.pk">www.secp.gov.pk</a>

Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	<a href="http://www.fpcci.com.pk">www.fpcci.com.pk</a>
State Bank of Pakistan (SBP)	<a href="http://www.sbp.org.pk">www.sbp.org.pk</a>
Punjab Vocational Training Council (PVTC)	<a href="http://www.pvtc.gop.pk">www.pvtc.gop.pk</a>
Oil and Gas Regulatory Authority	<a href="http://www.ogra.org.pk">www.ogra.org.pk</a>
Ministry of Industries and Production	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
Ministry of Energy	<a href="http://www.mpnr.gov.pk">www.mpnr.gov.pk</a>



## 12 ANNEXURES

### 12.1 Income Statement

Calculations	SMEDA									
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	755,082,000	969,021,900	1,218,198,960	1,507,521,213	1,842,525,927	2,026,778,520	2,229,456,372	2,452,402,009	2,697,642,210	2,967,406,431
<i>Cost of sales</i>										
Cost of goods sold	644,196,240	826,718,508	1,039,303,267	1,286,137,793	1,571,946,192	1,729,140,811	1,902,054,892	2,092,260,381	2,301,486,419	2,531,635,061
Direct labor	11,340,000	12,474,000	13,721,400	15,093,540	16,602,894	18,263,183	20,089,502	22,098,452	24,308,297	26,739,127
Bowser rent	58,320,000	74,844,000	94,089,600	116,435,880	142,310,520	156,541,572	172,195,729	189,415,302	208,356,832	229,192,516
Machinery maintenance	580,000	574,200	561,440	540,386	509,507	467,048	411,002	339,077	248,656	136,761
Direct electricity	1,040,022	1,144,025	1,258,427	1,384,270	1,522,697	1,674,967	1,842,463	2,026,709	2,229,380	2,452,318
Total cost of sales	715,476,262	915,754,733	1,148,934,134	1,419,591,869	1,732,891,809	1,906,087,581	2,096,593,588	2,306,139,921	2,536,629,585	2,790,155,783
Gross Profit	39,605,738	53,267,167	69,264,826	87,929,344	109,634,118	120,690,939	132,862,784	146,262,087	161,012,624	177,250,648
<i>General administration &amp; selling expenses</i>										
Administration expense	7,320,000	8,052,000	8,857,200	9,742,920	10,717,212	11,788,933	12,967,827	14,264,609	15,691,070	17,260,177
Electricity expense	693,348	762,683	838,951	922,847	1,015,131	1,116,644	1,228,309	1,351,140	1,486,254	1,634,879
Water expense	340,200	374,220	411,642	452,806	498,087	547,896	602,685	662,954	729,249	802,174
Travelling expense	732,000	805,200	885,720	974,292	1,071,721	1,178,893	1,296,783	1,426,461	1,569,107	1,726,018
Communications expense (phone, fax, mail, internet, etc.)	567,000	623,700	686,070	754,677	830,145	913,159	1,004,475	1,104,923	1,215,415	1,336,956
Office expenses (stationary, entertainment, janitorial services, etc)	453,600	498,960	548,856	603,742	664,116	730,527	803,580	883,938	972,332	1,069,565
Professional fees (legal, audit, consultants, etc.)	755,082	969,022	1,218,199	1,507,521	1,842,526	2,026,779	2,229,456	2,452,402	2,697,642	2,967,406
Depreciation expense	7,444,710	7,444,710	7,444,710	7,464,865	7,461,615	7,461,615	7,484,948	7,481,185	7,481,185	7,508,195
Amortization of pre-operating costs	504,000	504,000	504,000	504,000	504,000	-	-	-	-	-
Amortization of legal, licensing, and training costs	531,000	531,000	531,000	531,000	531,000	531,000	531,000	531,000	531,000	531,000
Bad debt expense	151,016	193,804	243,640	301,504	368,505	405,356	445,891	490,480	539,528	593,481
Miscellaneous expense 1	732,000	805,200	885,720	974,292	1,071,721	1,178,893	1,296,783	1,426,461	1,569,107	1,726,018
Subtotal	20,223,957	21,564,499	23,055,708	24,734,466	26,575,779	27,879,696	29,891,736	32,075,553	34,481,889	37,155,870
Operating Income	19,381,781	31,702,668	46,209,117	63,194,878	83,058,338	92,811,243	102,971,048	114,186,535	126,530,735	140,094,778
Gain / (loss) on sale of computer equipment	-	-	81,250	-	-	175,307	-	-	284,190	226,882
Earnings Before Interest & Taxes	19,381,781	31,702,668	46,290,367	63,194,878	83,058,338	92,986,550	102,971,048	114,186,535	126,814,925	140,321,660
Earnings Before Tax	19,381,781	31,702,668	46,290,367	63,194,878	83,058,338	92,986,550	102,971,048	114,186,535	126,814,925	140,321,660
Tax	6,148,623	10,460,933	15,566,628	21,483,207	28,435,418	31,910,292	35,404,866	39,330,287	43,750,223	48,477,580
<b>NET PROFIT/(LOSS) AFTER TAX</b>	<b>13,233,158</b>	<b>21,241,735</b>	<b>30,723,740</b>	<b>41,711,671</b>	<b>54,622,921</b>	<b>61,076,258</b>	<b>67,566,182</b>	<b>74,856,248</b>	<b>83,064,702</b>	<b>91,844,080</b>

## 12.2 Balance Sheet

Calculations											SMEDA
Balance Sheet											
	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	2,882,240	8,594,552	27,502,729	38,841,914	51,011,078	66,448,948	72,050,533	83,405,980	94,126,635	104,226,419	157,396,727
Accounts receivable		62,061,534	70,853,585	89,885,789	112,015,898	137,673,170	159,012,512	174,913,763	192,405,139	211,645,653	232,810,218
Equipment spare part inventory	24,167	25,121	25,791	26,065	25,805	24,837	22,949	19,880	15,307	8,840	-
Raw material inventory	10,736,604	13,778,642	17,321,721	21,435,630	26,199,103	28,819,014	31,700,915	34,871,006	38,358,107	42,193,918	-
Pre-paid annual land lease	-	-	-	-	-	-	-	-	-	-	-
Total Current Assets	13,643,011	84,459,849	115,703,826	150,189,398	189,251,884	232,965,968	262,786,908	293,210,629	324,905,188	358,074,829	390,206,945
<i>Fixed assets</i>											
Building/Infrastructure	25,615,200	24,334,440	23,053,680	21,772,920	20,492,160	19,211,400	17,930,640	16,649,880	15,369,120	14,088,360	12,807,600
Machinery & equipment	58,000,000	52,200,000	46,400,000	40,600,000	34,800,000	29,000,000	23,200,000	17,400,000	11,600,000	5,800,000	-
Furniture & fixtures	1,415,000	1,273,500	1,132,000	990,500	849,000	707,500	566,000	424,500	283,000	141,500	-
Computer equipment	325,000	217,750	110,500	379,478	252,073	127,918	439,293	291,806	148,081	508,537	337,802
Office equipment	1,152,000	1,036,800	921,600	806,400	691,200	576,000	460,800	345,600	230,400	115,200	-
Total Fixed Assets	98,507,200	91,062,490	83,617,780	76,549,298	69,084,433	61,622,818	54,596,733	47,111,786	39,630,601	32,653,597	25,145,402
<i>Intangible assets</i>											
Pre-operation costs	2,520,000	2,016,000	1,512,000	1,008,000	504,000	-	-	-	-	-	-
Legal, licensing, & training costs	5,310,000	4,779,000	4,248,000	3,717,000	3,186,000	2,655,000	2,124,000	1,593,000	1,062,000	531,000	-
Total Intangible Assets	7,830,000	6,795,000	5,760,000	4,725,000	3,690,000	2,655,000	2,124,000	1,593,000	1,062,000	531,000	-
<b>TOTAL ASSETS</b>	<b>119,980,211</b>	<b>182,317,339</b>	<b>205,081,606</b>	<b>231,463,696</b>	<b>262,026,316</b>	<b>297,243,786</b>	<b>319,507,642</b>	<b>341,915,415</b>	<b>365,597,789</b>	<b>391,259,426</b>	<b>415,352,347</b>
<b>Liabilities &amp; Shareholders' Equity</b>											
<i>Current liabilities</i>											
Accounts payable		55,720,549	71,172,239	89,157,037	110,027,046	133,942,585	147,328,807	162,052,801	178,248,253	196,062,202	211,841,589
Total Current Liabilities	-	55,720,549	71,172,239	89,157,037	110,027,046	133,942,585	147,328,807	162,052,801	178,248,253	196,062,202	211,841,589
<i>Other liabilities</i>											
Total Long Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
<i>Shareholders' equity</i>											
Paid-up capital	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211	119,980,211
Retained earnings		6,616,579	13,929,157	22,326,448	32,019,060	43,320,990	52,198,624	59,882,403	67,369,326	75,217,014	83,530,547
Total Equity	119,980,211	126,596,790	133,909,368	142,306,659	151,999,270	163,301,201	172,178,835	179,862,614	187,349,536	195,197,224	203,510,757
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>119,980,211</b>	<b>182,317,339</b>	<b>205,081,606</b>	<b>231,463,696</b>	<b>262,026,316</b>	<b>297,243,786</b>	<b>319,507,642</b>	<b>341,915,415</b>	<b>365,597,789</b>	<b>391,259,426</b>	<b>415,352,347</b>

## 12.3 Cash Flow Statement

Calculations	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
<i>Operating activities</i>											
Net profit		13,233,158	21,241,735	30,723,740	41,711,671	54,622,921	61,076,258	67,566,182	74,856,248	83,064,702	91,844,080
Add: depreciation expense		7,444,710	7,444,710	7,444,710	7,464,865	7,461,615	7,461,615	7,484,948	7,481,185	7,481,185	7,508,195
amortization of pre-operating costs		504,000	504,000	504,000	504,000	504,000	-	-	-	-	-
amortization of training costs		531,000	531,000	531,000	531,000	531,000	531,000	531,000	531,000	531,000	531,000
Accounts receivable		(62,061,534)	(8,792,051)	(19,032,204)	(22,130,109)	(25,657,273)	(21,339,341)	(15,901,251)	(17,491,376)	(19,240,514)	(21,164,565)
Equipment inventory	(24,167)	(955)	(670)	(274)	261	968	1,888	3,069	4,572	6,467	8,840
Raw material inventory	(10,736,604)	(3,042,038)	(3,543,079)	(4,113,909)	(4,763,473)	(2,619,910)	(2,881,901)	(3,170,091)	(3,487,101)	(3,835,811)	42,193,918
Accounts payable		55,720,549	15,451,689	17,984,799	20,870,009	23,915,539	13,386,222	14,723,995	16,195,451	17,813,949	15,779,388
Cash provided by operations	(10,760,771)	12,328,891	32,837,334	34,041,862	44,188,224	58,758,860	58,235,740	71,237,850	78,089,980	85,820,979	136,700,855
<i>Financing activities</i>											
Add: land lease expense		-	-	-	-	-	-	-	-	-	-
Land lease payment	-	-	-	-	-	-	-	-	-	-	-
Issuance of shares	119,980,211	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	119,980,211	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(106,337,200)	-	-	(376,228)	-	-	(435,531)	-	-	(504,182)	-
Acquisitions											
Cash (used for) / provided by investing activities	(106,337,200)	-	-	(376,228)	-	-	(435,531)	-	-	(504,182)	-
NET CASH	2,882,240	12,328,891	32,837,334	33,665,633	44,188,224	58,758,860	57,800,209	71,237,850	78,089,980	85,316,797	136,700,855

## 13 KEY ASSUMPTIONS

### 13.1 Operating Cost Assumptions

Description	Details
Water expense	3% of Direct staff salaries
Travelling expense	10% of administration expense
Communication expense	5% of Direct staff salaries
Office expenses (stationary, entertainment, janitorial services, etc.)	4% of Direct staff salaries
Professional fees (legal, audit, consultants, etc.)	0.1% of revenue
Bad debt expense	0.02% of revenue
Miscellaneous expense	10% of administration expense
Depreciation Method	Accelerated depreciation
Depreciation Rate	10% on Machinery 10% on Office Equipment 10% on Furniture & Fixture 33% Computer Equipment
Inflation Growth Rate	10%
Electricity Price Growth Rate	10%
Wage Growth Rate	5%

### 13.2 Production Cost Assumptions

Description	Details
Maximum Storage Capacity	120 Tons
Production Capacity in First Year	60%
Percentage Increase in Production Capacity every Year	10%
Maximum Production Capacity	100%

### 13.3 Revenue Assumptions

Description	Details
Growth in Sales Price	10%
LPG Processing Per Day (Tons / Day)	18
Days Operational / Year	300
Maximum Operational Capacity	5,400 Tons

## 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

[www.smeda.org.pk](http://www.smeda.org.pk), [helpdesk@smeda.org.pk](mailto:helpdesk@smeda.org.pk)

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

# 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

[www.smeda.org.pk](http://www.smeda.org.pk), [helpdesk@smeda.org.pk](mailto:helpdesk@smeda.org.pk)

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