SUMEDHA ENERGY PVT LTD

PROMOTING

5 TPD CBG MANUFACTURING PROJECT

Bio Fuels for Atmanirbhar Bharat

A SUMEDHA GROUP COMPANY

SUMEDHA GROUP OF COMPANIES

- SUMEDHA HOLDINGS INTERNATIONAL PVT LTD
  - SUMEDHA ENERGY PVT LTD
  - SUMEDHA LIFE PVT LTD
  - SUMEDHA GRUHANIRMAN PVT LTD
  - SOLAPUR TARUN BHARAT MEDIA LTD
  - DASANI HOLDINGS PVT LTD
  - DASANI CAPITAL PVT LTD
  - DASANI ENERGY PVT LTD

SUMEDHA HOLDINGS INTERNATIONAL PVT. LTD.

Sumedha Holdings - Dawn of a New Corporate Era where Care is Truly Imbided in the culture ! Mr. G.L Kanitkar founder of Sumedha Holdings Pvt. Ltd. A veteran in the field of Engineering Finance with more than four decades of experience. Innovative Engineering concepts to restructuring business has been his forte. A stalward having a huge network with high net worth individuals across the globe.

Sumedha Holdings Pvt. Ltd. has steadily climbed the charts to become a true global player in a short span of time. Headed by the mighty Sumedha Jadhav, Chairman of Sumedha Holdings Pvt. Ltd. Sumedha Holdings has been catapulted to incredible heights with his sheer wisdom and suturistic vision.

With an aim to create a sustainable global society. Sumedha Holdings began its journey with a team of like minded individual who came together to bring to life a common goal of Greatness with Goodness. Sumedha Jadhav wishes to carry forward the legacy of true leaders who believe in doing good for feeling better.

Innovation, Evolution, Culmination and Representation are the four cornerstones of Sumedha Holdings Philosophy of doing . Building something out of nothing takes a keen mind that is open to learn and Sumedha Jadhav 10 years of hands-on experience has led her to create a business of gigantic proportions that is a force to be reckoned with!

G. L. KANITKAR
Group Founder

BOARD OF DIRECTORS

SUMEDHA JADHAV
Group Chairperson

POOJA HINGANE
CEO

CHAIRPERSON'S ADDRESS

Dear Sirs,

Greetings !

This gives me a great pleasure to present this **CBG Brief Project Report** which will promote **Atmanirbhar Bharat** in renewable energy sector.

Sumedha Energy Pvt. Ltd. is actively engaged in implementing an array of CBG plants in Maharashtra and beyond. Establishment in this sector is adding another feather in our cap.

As we all know that, world is grappling with rising fuel costs which have become a major concern for the country's economy. So promoting Bio-gas is one of the most sustainable ways to gradually decrease the use of fossil fuels, reduce greenhouse gas emission through effcient scientific waste management and lower the financial burden of fossil fuel imports on the Govt. thereby saving precious foreign exchange.

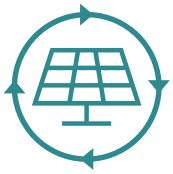
Utilization of agriculture residue, cattle dung and MSW for the production of CBG targets reduction in emission and pollution as well as it plays a major role in providing additional source of revenue to the farmers which in turn results in increasing rural development.

In conclusion, the transition to CBG is a step towards sustainable and cleaner future. It is imperative that we embrace this change and contribute to a cleaner and greener environment.

So, Lets Join hands for Greener and better Future !!!

Warm Regards,

SUMEDHA JADHAV
Sumedha Group Of Companies



SIMPLIFY
Products, systems and processes.

EXCELLENCE
Define details leading to perfection.

EXPERIENCE
Creating Wow! by meeting
your expectations.

SUPPORT
As if somebody is always there.

SATISFACTION
Happy clients. Happy employees.
Happy investors.

TRUST
Build reliable relationships.

Annexure

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A. INTRODUCTION

COMPRESSED BIOGAS (CBG)

Compressed biogas, also known as renewable natural gas or bio-CNG is an upgraded, compressed, commercially usable form of biogas that can be produced by anaerobic digestion of biodegradable wastes such as agro-wastes, industrial wastes and commercial wastes.

CBG contains about 92-98% of methane and only 2-8% of carbon dioxide. The calorific value of CBG is about 52,000 kilojoules (kJ) per kg, which is 167% higher than that of biogas.

The high methane content and calorific value, combined with the low quantity of moisture, hydrogen sulphide and impurities, makes CBG an ideal fuel for automobiles, industries and commercial sectors. The low emission levels of CBG also make it a more environment-friendly fuel than biogas

B. BRIEF ABOUT THE COMPANY, CLUSTER AND TECHNOLOGY

M/s. Sumedha Energy Pvt. Ltd. is a Pune based company engaged in development of rooftop and land based solar PV power generated projects and to sell the generated power to the government institutions and private sector on long term basis in and around the State of Maharashtra and rest of the parts of India.

M/S Sumedha Energy Pvt. Ltd. has developed a concept of a cluster consisting a self-sufficient production of CBG. This cluster consists number of activities connected from the plantation to the Dispensing stations of CBG.

C. CLUSTER

Our total project what we are planning is nothing but a cluster consisting no of activities, to be developed by various agencies working together.

Cluster involves following activities:

1. CBG plant
2. Dispensing Station nearby on flowing road
3. Warehouse for raw material storage
4. Grass Plantation over 160 Acres to secure shortfall and for consistent raw material input
5. Energy/Solar Project
6. Transportation System

D. ADMINISTRATIVE STRUCTURE FOR DEVELOPMENT OF CLUSTER

- CBG CLUSTER PROMOTER - SPV WITH WORKING PARTNER/CLIENT (PVT. TD)
- FINANCIAL ASSISTANCE - SELECTED FINANCIAL INSTITUTION
- CBG CLUSTER DEVELOPER – SUMEDHA ENERGY PRIVATE LIMITED
- CBG PLANT EXECUTION – SUMEDHA ENERGY PVT LTD
- SOLAR PROJECT - SUMEDHA ENEGY SOLUTIONS AND SERVICES
- GRASS PLANTATION – FARMERS
- WAREHOUSE – SUMEDHA GROUP OF COMPANY
- TRANSPORTATION SYSTEM – SUMEDHA GROUP OF COMPANY
- GOUSHALA - PROPOSED

E. MARKET POTENTIAL

The Government of India is importing about 10 lakh Crs natural gas which is wasting the valuable foreign currency however being an agricultural based country we are producing huge quantum of agro-waste (trash) which is normally burnt by the farmers after the crop season is over.

This technology with zero liquid discharge will produce bio gas out of agrowaste and will be the main source of energy supply to the country in future.

This production of CBG will ultimately save our valuable foreign currency too. Besides the above mentioned scenario we can utilize in various sectors mentioned below for whom is the necessity/essentials every day.

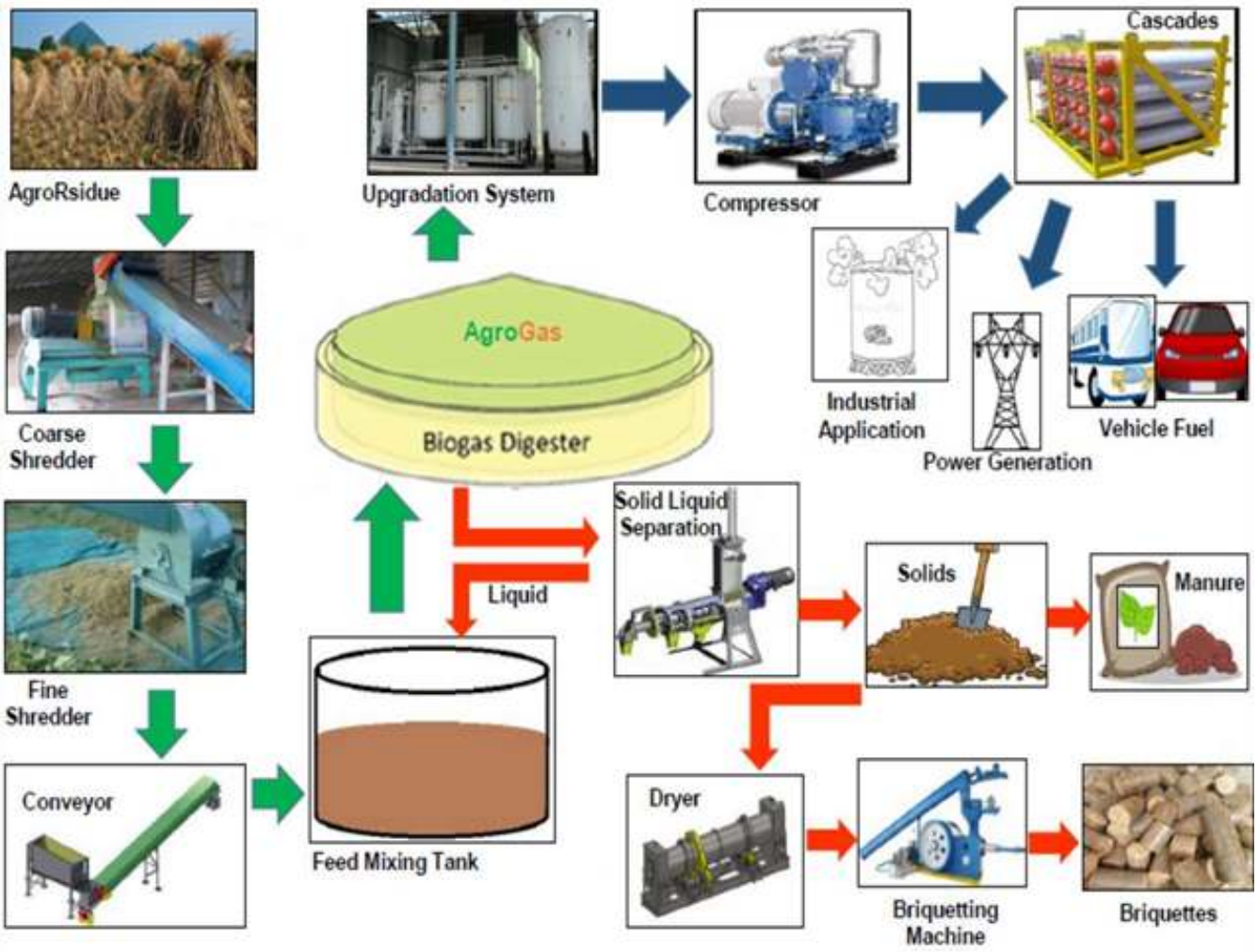
F. LIST OF BIOMASS FOR AGROGAS (2G CBG)

- List of Biomass
- Rice straw
- Wheat straw
- Cotton straw
- Maize straw
- Organic Solid Waste
- Soybean trash
- Sugarcane Bagasse
- Sugarcane trash
- Corn cob
- Tender coconut
- Empty Fruit Bunch (EFB)
- Coconut frond
- Castor De-Oil Cake (DOC)
- Sal De-Oil Cake (DOC)
- Press mud
- Napier grass
- Bamboo

G. APPLICATIONS OF AGROGAS (2G CBG)

Commercial	Automotive	Industrial
• Hotels • Canteens • Bakeries • Resorts • Residential clusters • Hospitals and Malls	• Public transport vehicles • Commercial and Private CNG fitted vehicles • Dual fuel two wheelers and heavy vehicles • Tractors and • Farm equipment	• Glass & Ceramic • Cement • Metal process • Textiles • Food processing • Painting • Heat Treatment • Cold storages

H. PROCESS FLOW DIAGRAM AND WORKING



I. TRANSPORTATION

We are establishing retired army personnel society to manage the entire transportation system right from raw material to final dispatch to dispensing unit.

J. GOI – ISO STANDARDS FOR FOSSIL AND BIO CNG

AgroGas (2G CBG) Comparison IS16087:2016		IS:15958
Methane, CH4	> 90%	>90%
Carbon dioxide, CO2	< 4 %	<3.5%
Moisture	< 5 mg/m3	<5mg/m3
Oxygen, O2	< 0.5%	<0.5%
Hydrogen Sulfide, H2S	< 20 mg/m3	<20mg/m3
CO2 + N2 + O2	< 10%	---
Hydrocarbons C1+	---	10% max.

K. SALES SCOPE

Sustainable Alternative Towards Affordable Transportation Scheme – (SATAT SCHEME)
SATAT, or Sustainable Alternative Towards Affordable Transportation, is a scheme that targets entrepreneurs to set up Compressed BioGas plants and later sell this fuel so obtained to Oil Marketing Companies as automotive or industrial fuel.

OR CBG PRODUCER CAN SELL THIS PURIFIED CBG DIRECTLY
IN RETAIL MARKET ALSO THROUGH OWN DISPENSING UNIT.

L. FINANCIALS

(*subject to the variations from site to site.)

Indicative Cost Economics

Sr.No.	Item Description	Required Quantity	Proposed Cost
1	5TPD CBG PLANT INCLUDING DISPENSING UNIT	5 TPD	30 CR
2	SOLAR PV PROJECT	1 MW APPROX	6 CR
		TOTAL COST	36 CR

***GST – ALL INCLUSIVE As Applicable**

Expenditure

Sr.	Item Description	Quantity/day	Unit	Rate(INR)	Total	Monthly	Yearly
1	Raw Material - Biomass	40 (10% Moisture content)	Tonnes	2000.00	80000	2400000	28800000
2	Electricity	7500	Units	8.66	64950	1948500	23382000
3	Transportation	5	Tonnes	3500.00	17500	525000	6300000
4	Storage	-	Lumpsum	3500.00	3500.00	105000	1260000
5	Repair and Maintenance	-	Lumpsum	5000.00	5000.00	150000	1800000
6	Admin Cost	-	Lumpsum	6000.00	10000.00	300000	3600000
7	Insurance	-	Lumpsum	100000.00	100000.00		1200000
8	Contingencies	-	Lumpsum	100000.00	100000.00		1200000
9	Royalty Charges (inr 2.75/kg)	-	Kg	2.75	13,750	412,500	4950000
				Total	485950	5578500	70542000

Production cost of CBG is about INR 45/kg

***Note:** Costing will differ as per raw material variation. (with change in moisture content)*

Expenditure

Sr.	Item Description	Quantity/day	Unit	Rate(INR)	Total	Monthly	Yearly
1	Production Cost	5000	KGS	45	2,25,000	67,50,000	8,10,00,000
				Total	2,25,000	67,50,000	8,10,00,000

***Note:** Production cost of CBG without solar power generation plant is about inr 45/kg. Production cost of CBG with solar power generation plant is about inr 40/kg Repayment of entire loan will be added into expenditure as per bank's lending rate of interest. Net profit will be distributed 90:10 at the end of financial year.*

Gross Revenue

Sr.	Item Description	Production /day	Unit	Selling Price	Revenue /day	Revenue/ Month	Revenue/ Annum
1	2g CBG	5000	KGS	70	3,50,000	1,05,00,000	12,60,00,000
2	Briquettes	12000	KGS	5	60000	18,00,000	2,16,00,000
				Total	4,10,000	1,23,00,000	14,76,00,000

Revenue generation of cbg is about inr 70/kg gross gross revenue of cbg is about inr 25/kg

***Note:** We will reduce the production cost by inr 5/kg if we install renewable energy project.*

M. STATUTORY COMPLIANCES

List of Statutory Approvals

STATUTORY APPROVALS

1. Petroleum and Explosives Safety Organization (PESO)
   a. Initial approval under form E&F of Gas Cylinders Rules2016
   b. Final License and License Endorsement
2. State Pollution Control Board - Consent to Operate
3. Fire NOC
4. Land Non-Agricultural Use (N.A.) i.e, Change of Land Use (CLU) Certification
5. Issuance of Form V to TEPC Entity's contractors for obtaining labour license
6. Environmental clearance/Environmental Impact Analysis
7. State Pollution Control Board - Consent to Establish
8. Director of Industrial Safety and Health (DISH) Factory Inspector
9. License NOCA (Natural Organic Certification Association) Certification for Manure 10.
10. Clearance from National Highway Authority of India (NHAI) - If required
11. Public Works Departments (PWD) clearance
12. Clearance from State Power Corporation Ltd. For electrical connection
13. Factory Inspector
14. Forest Department Approval
15. Water Regulation and Development Authority
16. Gram Panchayat NOC
17. Police Department Approval
18. Weights and Measure Stamping

ENERGY IS THE ESSENCE OF LIFE

SUMEDHA ENERGY PVT. LTD.

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