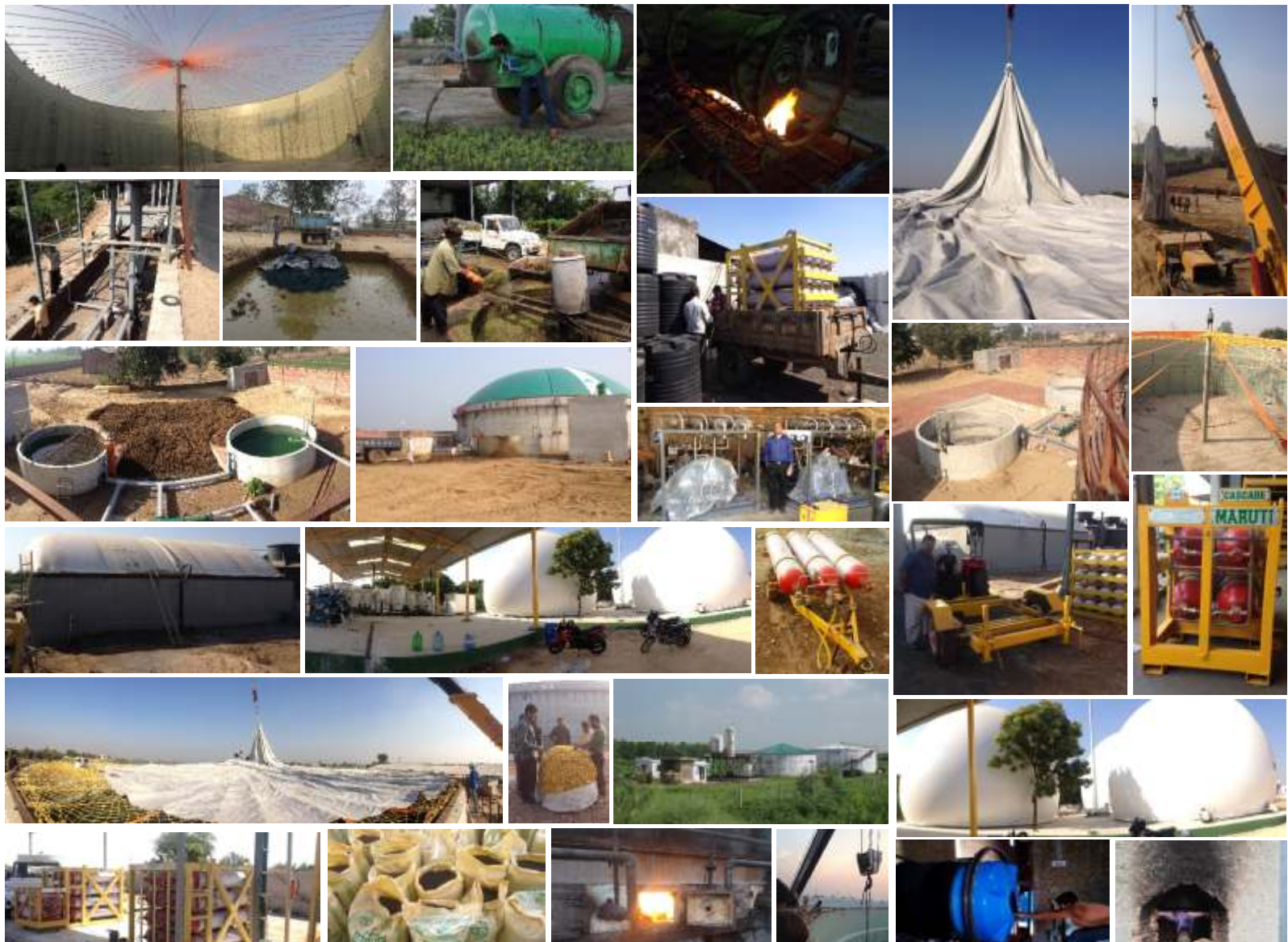




Haath Vishwas Ka....





Welcome to CEID

In the fast growing economies, people are looking for the safe opportunity of their investment. CEID in this way is synonymous with lasting quality, fast service and unparalleled expertise for project development. Our consultancy have been pivotal in shaping modern biogas project in India along with agri-business, solar, hydel and petrochemical.

We make sure to add value to your money.

Guaranteed quality

We cater the customized solution to our every client as per their need. The experienced CEID team guarantees the smooth implementation of the whole project. Our international experience adds the flavor of irreplaceable standards. While giving a reliable and optimized solution, cost effectiveness is always our concern.

Strong association

To ensure that you get the perfect business solution for your specific requirements, we do not rely exclusively on our own know-how but also on our academics and business partners. When necessary, we bring in competent partners to assist with planning, permit procedures or assembly. By doing so we guarantee that our projects are exactly what you would expect from us right down to the last detail.

HARNESS GROWTH AND BUSINESS POTENTIAL

About Us

CEID Consultants & Engineering Pvt. Ltd. is an organization established with the principal aim of tapping and developing the renewable energy sources market and making the world a better place to live in with less pollution.

CEID was formed by a group of professionals Engineers and Project Managers to design and build biomass renewable energy solutions which specializes in biogas and its value added byproducts, with proven designs through technology development to the delivery of turn-key projects. We support our clients in identifying their need, design and construct the plant, and maintain the plant as per the client's needs.

CEID'S VISION

To make the world a better place to live in by the development of economic, efficient and environmental friendly energy technological solutions.

CEID'S MISSION

To create environmental sustainability and energy independence through the growth of the biogas industry thus reducing the dependence on fossil fuels.





H₂O

NATURAL
100%

O₂

TRACK RECORD

CEID is one of the India's leading consultancy company in project development. Managing projects of more than billion rupees across India. Company is going to open its overseas branches.

HIGHLY QUALIFIED TEAM AND SHAREHOLDER BASE

With highly qualified team and strong shareholder base CEID is an independent consultancy company with an international team of specialists with many years of experience in financial services, technology and marketing. The team's hallmarks are its professionalism, stability, and the outstanding motivation of its members.

GLOBAL PRESENCE AND WORLDWIDE NETWORK

CEID is headquartered in Abohar and shortly going to open its local representative offices in US and Australia and a global network of partners. This assures essential local presence in the company's profile.

STANDARDIZED AND CUSTOMIZED

CEID solutions are geared to potential investors, banks and government. Designed to meet the varying needs of its clients, the company's broad range of products and services cover the whole spectrum of investors. Apart from consultancy CEID also offers training services, and provides detailed and transparent reporting. Recently, CEID has entered into the marketing research field too.

REDEFINING MILESTONES

- Installed first biogas bottling plant
- Installed biggest kinnow waxing plant
- Installing first MTO Petrochemical refinery



AMALGAMATING EXPERIENCE



AAZADI SOCH KI... TO SERVE WITH LOVE



If you want to start an industry successfully and profitably, you need a partner you can rely on. Our customers appreciate the efficiency and cost-effectiveness when the licensing, planning, construction and on-going support for their project is provided from a single source. This is why CEID can offer you a complete services package to safeguard your investment.

Project development

FEASIBILITY ANALYSIS

- Input analysis
- Plant rating
- Financial aspects
- Profitability analysis

Planning and Regulatory Support

- Site planning with a vision for possible expansion
- Support with planning permission
- Support with marketing of the finished product

Project implementation

- Construction phase
- Construction and installation
- Initial commissioning
- Technical commissioning of the plant
- Operator training

Other services

Monitoring plant performance
Advice on the flexibility of plant

Technical & Maintenance Services

- Provision of maintenance work
- Remote monitoring
- 24hour hotline
- Process Evaluation

Operations Management

What ?

Biogas is produced in biogas plants by the biological degradation of biomass - mainly farming substrate, manure, energy crops, food waste and by-products of the food processing industries. Biogas is composed mainly of methane gas, a flammable gas and carbon dioxide gas. Methane gas is an efficient energy carrier that has a wide range of uses and so is highly valuable. The Carbon dioxide gas captured when the biomass was created. The Carbon dioxide gas has many uses in the food and beverage industries, healthcare industry, oil and gas industry, welding and fabrication industry.

How ?

Fermentation by bacteria in air-tight tanks, known as digesters, produces biogas in a process comprising several stages. Biogas is produced whenever organic matter decomposes in an anaerobic environment without oxygen. Microorganisms and bacteria make the process happen. It is a natural process which occurs in many instances in nature such as the digestive tract of a cow. In a biogas plant this natural process is simply accelerated by creating the best possible conditions for the microorganisms and bacteria such as continuous stirring and warming the organic matter.

From What ?

Any organic matter can be used to produce biogas with few exemptions, but typically manure, energy crops and organic waste often generated from the food processing industry can be used.

Why?

Some of the benefits of biogas - Economical and Social

- Production of valuable green energy in the form of electricity, heating and cooling by highly efficient energy conversion of wet biomasses.
- Sale of Biogas and Bio CNG as replacement of high cost LPG.
- Reduction of the emissions of greenhouse gases.
- Sale of CO₂ in solid, liquid and gaseous form.
- Sale of Organic Fertilizers, produced as by-products.
- Providing chilling service for cold storage / air conditioning plants.
- Reduction of odor emissions (manure precessing plants).
- Sale of Carbon credits generated through avoided methane emissions, electricity generation and chilling services provision.
- Reduction of pathogens.
- Sale of electricity at attractive prices through short term contracts.
- Sale of Renewable Energy Certificates from sale of electricity.



Anaerobic Digestion

Anaerobic Digestion is a biochemical process during which complex organic matter is decomposed in absence of oxygen, by various types of anaerobic microorganisms. The process is similar to many situations found in nature as in the stomach of ruminants such as cows.

In a biogas installation, the outcome of the Anaerobic Digestion process is the biogas and the digestate. If the feedstock for Anaerobic Digestion is a homogeneous mixture of more than one feedstock types such as animal slurries and organic wastes from food processing factories, it is known as "co-digestion" and is the most common biogas application today.

FEEDSTOCK FOR ANAEROBIC DIGESTION

Various biomass types can be used as feedstock or substrates for the production of biogas from Anaerobic Digestion.

- Animal manure and slurry.
- Agricultural residues and by-products such as horticulture, fruit, vegetables.

- Digestible organic wastes from food and agro industries of vegetable and animal origin, wastes from sugar processing, molasses preparation and fermentation, cereals, edible oils, cocoa, tea and tobacco preparation and processing, baking and confectionery industry, alcoholic and non-alcoholic beverages.
- Dedicated energy crops such as maize, corn etc.
- Organic fraction of municipal waste of vegetable and animal origin, household waste and similar commercial, industrial and institutional wastes and waste from catering.
- Sewage sludge, off-site waste from water treatment plants.
- Wastes from wood processing, furniture pulp, paper and cardboard production and processing.
- Wastes from the dairy products industry Waste packing; absorbents, wiping clothes, filter materials.
- Waste from the leather and textile industries.
- Garden and park wastes.

At CEID we focus on maximizing the return on investment for our clients by delivering projects that are efficient, reliable and have operation ease thus providing an economic and social value to the client and humanity.

CEID'S VALUE PROPOSITION IS:

Utilization of low cost feedstock such as animal waste, food waste, municipal solid waste, sewage sludge and agro-residues using technology which is environmentally sustainable, resource efficient, cost effective and produces multiple revenue streams such as electricity, Biogas, Bio CNG, Co2, Organic fertilizers and waste heat derived chilling capacity and Carbon Credits.

Implementing a community oriented biomass supply chain which ensures biomass security for the power plant and income & energy security for the community participating in the biomass supply chain.

Selling electricity as a Merchant Power Plant through a combination of bilateral deals and selling through the Electricity Exchange utilizing the "Open Access" provision in the Electricity market.

REALIZATION OF MULTIPLE STEAMS OF REVENUE THROUGH:

- Sale of electricity at attractive prices through short term contracts.
- Sale of Biogas and Bio CNG as replacement of high cost LPG.
- Sale of Co2 in solid, liquid and gaseous forms.
- Sale of Organic Fertilizers, produced as by-products.
- Providing chilling service for cold storage / air conditioning plants.
- Sale of Carbon credits generated through avoided methane emissions, electricity generation and chilling services provision.
- Sale of Renewable Energy Certificates from sale of electricity.



**GARBAGE IN
IS NOT
GARBAGE OUT**

**BIOGAS
PLANT**

Bio Electricity

Bio CNG

Bio Carbon Dioxide

Bio Sulphur Powder

Solid Bio Fertilizer

Liquid Bio Fertilizer

Carbon Credits

Animal Manure & Slurry

Agricultural Residue, Byproducts of Horticulture, Fruit & Vegetables

Digestible Organic Waste from food & agro industries of animal or plant origin

Wastes from sugar processing, molasses preparation & fermentation

Waste from baking and confectionery industry, alcoholic and non-alcoholic beverages.

Dedicated energy crops such as maize

Organic municipal waste of vegetables and animal origin, household waste and similar commercial, industrial and institutional wastes and waste from catering

Sewage sludge, off-site waste from water treatment plants

Wastes from the dairy products industry Waste packing; absorbents, wiping cloths, filter materials

Waste from the leather and textile industries

Waste from Gardens and parks

Introduction

This quotation is for the design, manufacture and delivery of a Vacuum Pressure Swing Adsorption (VPSA) Bio Gas Purification System.

Process Description

The biogas collected in your gas holder will be fed to a Roots compressor where pressure of gas is raised to around 0.5 kg/cm²g.

The Moist Gas will be then fed to a H₂S removal Adsorber

The H₂S free gas is then allowed to get dried in a Twin tower Gas dryer

This gas is then fed to a Zeolite Molecular Sieves based VPSA purification unit which has a twin tower arrangement filled with special grade of ZMS to adsorb CO₂ from the inlet gas. The outgoing gas will be free from H₂S and approximately 2 % CO₂. While one tower is purifying the gas, the other tower is taken for regeneration which is achieved by

- Depressurization of the tower.
- Creating partial vacuum in the tower
- Providing small purge of pure gas in the reverse direction in the tower.

Salient Features

The system has been designed with adequate instrumentation package so that the following abnormal conditions are avoided.

- Low pressure in the gas holder
- High discharge pressure
- High discharge temperature
- All electrical will be suitable for flame proof are classification as per Gr. IIA/IIB.

Basic Control Function

The Complete System Is Pre Program control by a microprocessor (PLC). The Power and Instruments are operated through this PLC and a touch screen HMI is provided on the PLC/Control Panel





INTRODUCTION

This quotation is for the design, manufacture & delivery of SBPW(Scrubbing By Pressurized Water) Process based Bio Gas Purification System with a capacity of Inlet Bio Gas.

The SBPW(Scrubbing By Pressurized Water) technology is the most applicable process in most situations because it removes a wide range of pollutant (including CO₂, H₂S, alcohols etc) in one step.

The PWS process is based on the difference insolubility of CH₄ and CO₂ in water. The process is intensified by further improving the solubility of CO₂ by pressurizing the absorption system to 8-10 bar. Other water soluble pollutants like H₂S will be washed out /absorbed into the circulation water.

PROJECTS INSTALLED BY CEID & RUNNING SUCCESSFULLY

S.No	Projects Name & Address	Plant Capacity (Raw Biogas in Cum/day)	Ministry of New & Renewable Energy (MNRE) Sanction Date	Present Status
1	M/S Anand Energy Village Kala Tibba, Tehsil-Abohar, District - Fazilka (Punjab)	600	16.06.2009	Commissioned on dated 17.11.2011
2	M/S SASK Energy Village Najabt Kukrian, P.O Lubaniawali, Tehsil & District- Sri Muktsar Sahib (Punjab)	1000	29.04.2010	Commissioned on dated 15.03.2012
3	M/S Shashi Energy Village Tohana, Near Green Valley Public School, Ratiya Road Tehsil-Tohana, District- Fatehabad (Haryana)	600	10.02.2011	Commissioned on dated 11.09.2012
4	M/S Sanjh deep Gas Energy Village/P.O Mehma Sarjan, Tehsil & District Bathinda (Punjab)	5000	26.09.2011	Commissioned on dated 13.11.2013

UNDER INSTALLATION UNITS OF BIOGAS BOTTLING WITH CAPACITY

S.No	Projects Name & Address	Plant Capacity (Raw Biogas in Cum/day)
1	M/S Dynamic Bio Energy Developers Hyderabad (Andhra Pradesh) (India's first Tapping Biogas bottling plant from Effluent Treatment plant (ETP))	5000
2	M/S Sunmax Energies, Fazilka (Punjab)	2000
3	M/s Aditech Bioenergy & Fertilizer, Jagraon, Ludhiana (Punjab)	7500
4	M/s Rockstone Infrastructure Pvt Ltd, Ahmedabad (Gujarat) India's biggest biogas bottling plant on Sewage waste	20,000

BIOGAS BOTTLING PROJECTS ARE UNDER PIPELINE

S.No	Location	Plant Capacity (Raw Biogas in Cum/day)
1	Jalandhar (Punjab)	16,000
2	Dabwali (Haryana)	3000
3	Bangalore (Karnataka)	10,000
4	Barsana (Uttar Pradesh)	10,000
5	Bhopal (Madhya Pradesh) on Industry Waste	10,000



PROJECT WORK IMAGES





INVESTORS FROM FINLAND AT CEID BIOGAS BOTTLING PLANT SHASHI ENERGY





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