



Global Energy Collaborations

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Empowering Rural bases Globally with Wastage Utilization

Creating Biomass Utilization Village Centers for Power Generation

Improving Health, Education, Career and Life Styles Drastically

Our world as we see from the space (see image below) very clearly shows us the lighted areas, we could see USA, Canada (North America in general) and Europe is highly lighted and so are some of the wonderful parts in South America and also India and Eastern China etc, though much, much more, remains to be done in India, Africa, North and Midwest and South West of South America etc and as we know today so many thousands and thousands of villages remains unelectrified, which creates multiple inefficiencies effects on Health, Education, Career and life style in general.

In general as we see the economies that developed in these countries is major due to the facts that cities are not that overloaded as many scopes were there in villages and smaller towns, and that is what we ought to concentrate on the rural and small town development in all possible ways and Power Generation remains to the most significant tool to take all of us there to a development which is possible and we should start thinking of utilizing Power Generation based on Wastages as much as possible.



At Global Energy we believe that while Solar lighting and other aspects can improve things also, but the cost aspect leaves many avenues unanswered and today because of the cost aspects many areas are still not developed, just because we have not taken the Biomass Wastage Utilization to the right interiors as

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much as we should have done. To make it simple we can say that 1 MW of power could be sufficient for a small village and the cost of powering the village with Solar Photovoltaic systems would be 8 to 9 times higher than what we can do with a Biomass Gasifier system and still minimize the chances of theft of solar panels in such areas, where security is a major question.

Global Energy Collaborations, presents a unique solutions for creation of Biomass Wastes utilization, Centers in every unelectrified or lowly electrified villages, which requires either 0.5 MW or 0.75 MW or 1.0 MW in general, we have amply reflected these aspects on our website: www.biomassgasifier.com
And here also would like to say:

A new era of awareness is coming in energy sector to embrace the technologies that touches NATURE and tries to utilize what NATURE has to offer the Millions of Rural and Poor masses on the Globe who still have problems LIGHTING THEIR NIGHTS AND LIVES EASILY, even now



BIOMASS GASIFIERS
IS A SOLUTION TECHNOLOGY FOR THOSE WHO WANT TO
LIGHT UP THEIR NIGHTS AND LIVES AND NOW IS THE TIME

We propose to offer a composite unit for villages to have:

- a) 500 KVA or 1 MW unit for Power Generation
- b) Which could connect out villages lighting for street and homes and public buildings
- c) Have Adult Education Unit and also have handicraft learning centers for women for future development of Handicrafts for some Exporters or Government Units who could be ultimately absorbed there for regular earnings.
- d) Have small Health Facility, which could even store vaccinations and medicines for critical health conditions and also housing critical and general health precautions based Videos for Women and men presentable every week twice or so.
- e) Have Children Entertainment Center with Educational upliftment as the background
- f) Providing Employment for the village people ultimately to handle the Biomass Gasifier based power generation units' maintenance, utilization, feedstock collection and transmission maintenance as well.
- g) Have Satellite based DSL internet for village development and linking them to better and all places around the world.

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How does a Biomass Gasifier works:

The system: Biomass Gasifier is essentially a chemical reactor where various complex physical and chemical processes take place. Biomass gets dried, heated, pyrolysed, partially oxidized and reduced in this reactor as it flows through it. Four distinct processes take place in a gasifier: Drying of the fuel, pyrolysis, combustion and reduction. Although there is a considerable overlap, each process can be considered to be occupying a separate zone in which fundamentally different chemical and thermal reactions take place. The fuel must pass through all of these zones to be completely converted. The essential characteristic of the down-draught design being used in our "BG-Ank" (The Global brand name in Biomass Gasifiers) is that it is designed so that the tars given off in the pyrolysis zone are drawn through the combustion zone, where they will be broken down or burned. When this happens, the energy they contain is usefully recovered and the mixture of gases in the exit stream is relatively clean.

What are the normal acceptable FEEDSTOCK

In addition to almost all types of wood waste and fuel wood / firewood etc., "BG-ANK" gasifier can operate on the following feedstocks:

- ❖ Branches and Twigs
- ❖ Maize cobs
- ❖ Weeds like lantana camara
- ❖ Appropriate briquettes of various agricultural residues
- ❖ Stalks of Cotton, pulses etc
- ❖ Coconut Shells
- ❖ Briquettes of tamarind husk
- ❖ Certain industrial wastes of paper mills, plywood industry etc
- ❖ RICE HUSK, SAW - DUST AND FINES ARE ALSO USED NOW-A-DAYS

With constant research and development, the range of acceptable feedstocks for "BG-Ank" gasifier keeps on expanding

How does it essentially look like:

Here is a usual Biomass Gasifier image:



In a Village Setting, how does it look like, when housed in smaller places (for smaller units)

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How is the Tech Flow chart like?

Simple Organized and very successful since last 15 years



It is a proven technology and has been used internationally and countries like India for more than 15 years now with high success ratios, in fact in India, some of the Islands like Sunderbans in state of West Bengal, are lighted with Biomass Gasifiers and are taken care by village youths for more than 8 years now.

How do we propose to complete and connect the various aspects of Village youth Development and Employment assurance with the project:

Here is what is provisioned and what would be done:

- a) 500 Kw or 1 MW unit for Power Generation with all provisions for feedstock done. Usually these systems are supplied without any provision for feedstock collection, storage and conveying to the systems, we work on to provide you the entire system and even planning out with the village level people with enough interactions on study of what could be the right feedstock, helping them negotiate with the costs and if any nearby rice paddy farms and rice mills are there to get them at right price and also negotiating with the Saw Dust sellers to fix a right price and arrange briquetting plant in case such stocks are available at a lower price.



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b) Connecting villages lighting for street and homes and public buildings. This is done connecting out based on a survey made on pre-installation level and all transmissions arrangements are made accordingly and all villages connected accordingly and small meters installed for their rate and billing systems.



c) Have Adult Education Unit and also have handicraft learning centers for women for future. We understand as we go ahead, in every village / rural area in any country, the Adult education is a major area and it has been globally found that 65% of the uneducated adults resent that they have not studied and want to study and join the main stream and that is what this Adult Education Room and library full of educational videos etc would be doing and 2 – 4 people in turn get full education and training to run these places and the state based or central government based funds are utilized in a better way here.



FROM THIS



TO THE HELPING HAND LEVEL



THEY TURN UP TO THIS EDUCATED

Women need to learn and every village can be made a handicraft training and manufacturing units if women of that area are educated to make their handicrafts and today when the world wide urge to use greener and natural products is there, more and more demand from developed countries, is creating good scopes for such products and in fact it has been seen by some of the major exporters of

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handicrafts that the demand of developed countries are not met, when it comes to quantity and such manufacturers can be urged to have supplemented manufacturing units when the village folks especially women learn the art of handicraft manufacturing more and more.

All such units can be made of readily available high grade plastics and by putting up many mobile / manufactured homes in a much shorter time rather than going in details with

Development of Handicrafts for some Exporters or Government Units who could be ultimately absorbed there for regular earnings.



d) Have small Health Facility, which could even store vaccinations and medicines for critical health conditions and also housing critical and general health precautions based Videos for Women and men presentable every week twice or so.

This is quite evident in itself, that villages reel under the problems of not having right vaccinations and many other things in health center, many of them just because they do not have right refrigeration facility or because if they have there is not enough electricity going on in the Health facility that the vaccinations turns bad and ineffective to be used, with constant supply of electricity of nearly 2 KW from a 500 MW unit a village Health Unit can sustain all such things and all critical vaccinations and medicines can be made available readily.



At Mahatma Gandhi Health Center in Kabwe, Zambia, Daniel Ngoshe (right) counsels Alex Chipoya, a 46-year-old widower with five children, on the importance of drug adherence.

e) Have Children Entertainment Center with Educational upliftment as the background Providing Employment for the village people ultimately to handle the Biomass Gasifier based power generation units' maintenance, utilization, feedstock collection and transmission maintenance as well. Have Satellite based DSL internet for village development and linking them to better and all places around the world.

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We don't want this



We have to do this



and have better schools



and then Computer for kids

- h) Providing Employment for the village people ultimately to handle the Biomass Gasifier based power generation units' maintenance, utilization, feedstock collection and transmission maintenance as well.
- i) Have Satellite based DSL internet for village development and linking them to better and all places around the world



Detailed uses of Biomass Gasifiers are stated in <http://biomassgasifier.com/offtech.htm>

A detailed proposal based on your requirement can be presented once we know what your requirements for which the attached form can be filled up with ease and someone from our office will get in touch with you.

How does the entire System works:

Every Governmental system in every country differs from each other, we had been discussing with few of the systems and here is the best system that we feel that can be implemented:

For a Village and Youth Development and Employment:

Following steps can be taken up:

- a) Statute or notification that every such village can apply for such system if they are ready to handle the affairs in a specified manner.
- b) The notification makes the village council / Panchayat responsible for handling the affairs and take up the system on their own after a period of 6 months or 12 months as decided, (till then our personnel trains your persons, maintains the system and also work hand to hand to explain the maintenance and smooth processing)
- c) 4 to 8 people from various sections are selected and trained for :
 - i. Procurement of Feedstock and training for feeding the system and maintenance for feedstock conveyance part

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- ii. Two Tech persons trained in Electrical and Mechanical maintenance
 - iii. One / two person trained for accounting maintenance
 - iv. A computerized system would be set up to let the office work out the billing and the collection of revenue from villagers
 - v. Bi-Monthly system of reporting to be done under a special set up to be maintained at the District Magistrate's office
 - vi. If in a range of 20 – 30 miles 5 units are made company shall place an ongoing supervisory system.
 - vii. Access to maintenance of the internet facilities can be made by Satellite DSL methods which will keep every team member and also the health facilities in touch with the villages, such satellite if installed of advanced level can also help the village to have connectivity to Celular phone frequency if not available in such villages or zones.
- d) While the Village Council / Panchayat office and especially Village Council / Panchayat head remains to be the head of affairs at Village level the ultimate authority to sanction the appointment of appropriate persons remains with the District Magistrate hence maintaining the balance of systems and reducing chances of mis-management.

Further planning can be customized once the further discussion is made with us and the systems procurement discussed, further matters can be discussed with the person presenting the precious document to your office. Meanwhile, please visit : www.biomassgasifier.com while our contact numbers are stated above, while we do not take any assignment directly since the entire execution needs local help of dedicated people who really want to make a difference to people lives in remote areas and dedicate to select right people to work in the village and surrounding areas.

THANK YOU FOR YOUR PRECIOUS TIME IN GOING THORUGH THIS DOCUMEN, THIS IS JUST THE BEGINNING OF YOUR INTERST IN MAKING DIFFERENCE IN PEOPLES' LIVES.

