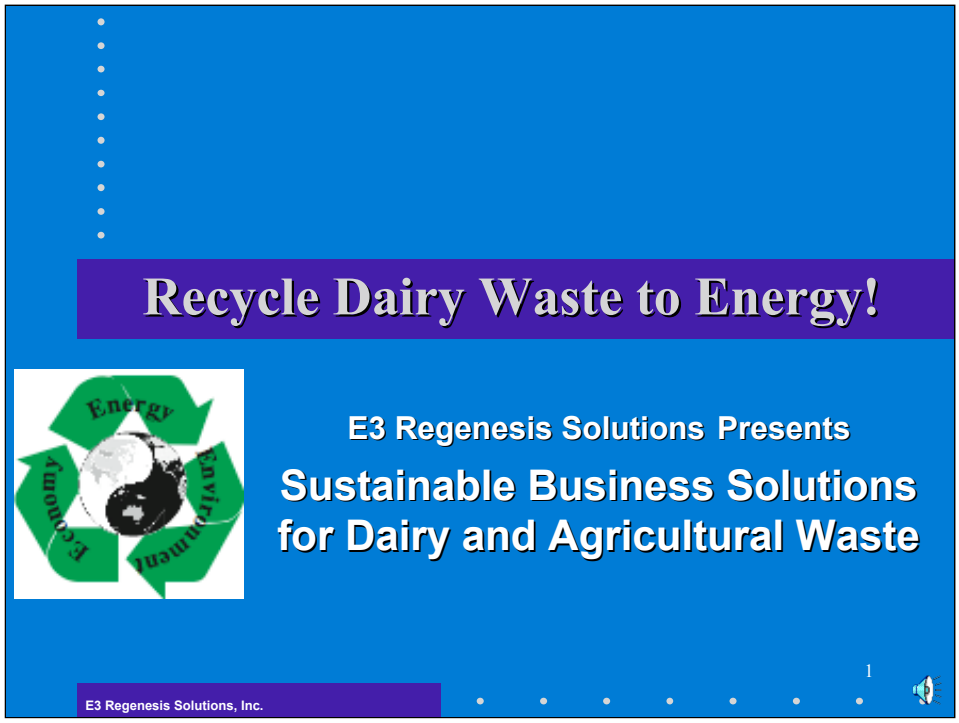


Fact 1: An 800 cow dairy farm paying $15-18,000.00 per month for electricity averages $20.00 per month for each cow.

Fact 2: At $.10/kWh, that equals 160 MWh per month or 200 kWh per month per cow! This is equivalent to 682,000 BTUs per cow/month.

Fact 3: Each cow produces manure with a BTU value up to 269,000/day! This is equivalent to 80 KWh. Times 30 days = 2,400 kWh/month.

Conclusion: Energy from cow manure is more than enough to pay the electric bill with plenty to spare!

We can use that manure as fuel to

- provide clean heat energy for business applications
- provide clean electricity (no emissions) for sale
- provide clean water (distilled pure in large volumes)
- supply dry ice for food, medical and industrial use
- supply steam for cleaning, heating and cooking
- dispose of any other agricultural waste
- clean up pesticide contamination
- reduce government regulation requirements and
- remove the potential for future penalties and fines.

An average dairy cow produces 85# of raw manure a day per 1000 pounds of animal weight (not counting bedding); that includes approximately 8.6 lb. of volatile solids.

> Thus a 1500 lb. Holstein is likely to produce 130 lb. of manure (13.23 lb. of volatiles). It contains 0.7% phosphorous, 3.9% Nitrogen and 2.6% potassium, which we capture as chemicals for resale. The volatile component averages 6,000 BTU per pound (by standard measurements), equivalent to almost 2 kWh of electricity. One kWh is equivalent to 3413 BTU.

The average dairy cow produces the equivalent of 80 kWh per day or 827 kWh per month at 35% conversion efficiency!

A Dairy group with 21,000 cattle can produce the equivalent of 24.5 MW/hr at 35% efficiency: more than enough energy to run their farms and dairies. And electricity is only a byproduct!

Cogeneration: Thermal conversion installations produce clean water, steam, cooling and other products through cogeneration before making electricity. This is more efficient than making electricity first then using electricity to do this work.

Additional business can be built around the plant to fire bricks, smelt scrap metal for resale, recycle scrap tires, make cement, etc.

More possibilities for reducing costs and generating new income? Put your imagination to work. Can you think of some more?

California's dairy heartland reveals a universal story:

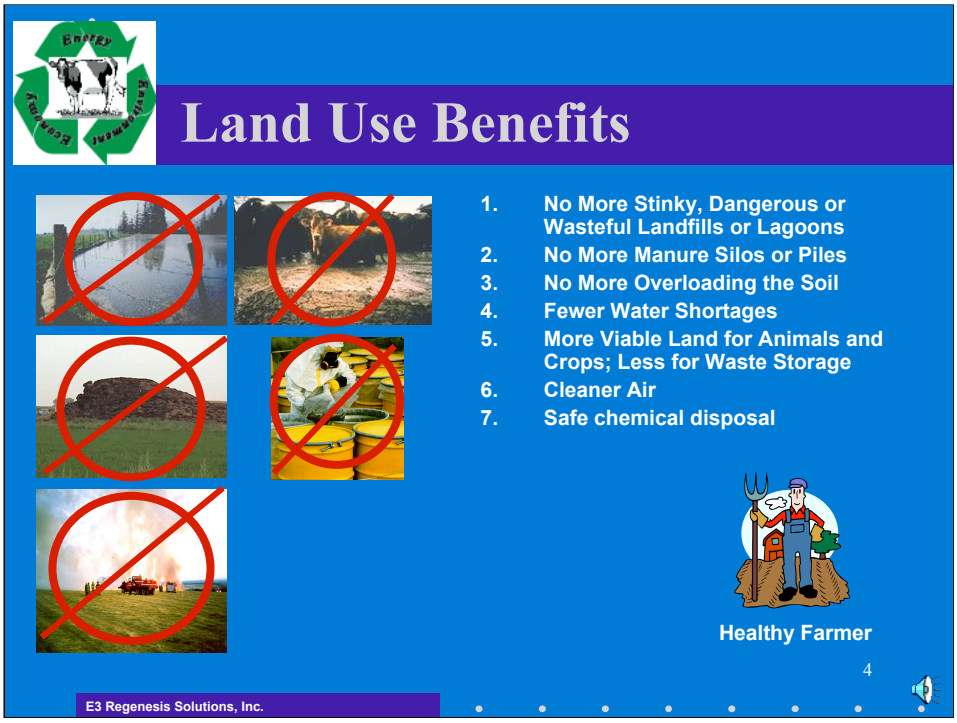
"Tomorrow's (San Joaquin) Valley will require an entirely new range of homes, schools, and roads in order to accommodate its citizens. Clearly, these are all land intensive needs and highlight the reality that serious choices regarding the Central Valley's physical and economic landscape will have to be made soon. ***Thus the challenge for all those who care about California's future and this important national resource is to ensure that the land use demands created by the Valley's inevitable growth lead to decisions that remain consistent with the maintenance of its agricultural integrity."***

Agricultural Land Conservation in the Great Central Valley (ALCGCV)" October 1998, Great Valley Center, Modesto, CA.)

E3 Regenesis can design a system specific to a locality that will

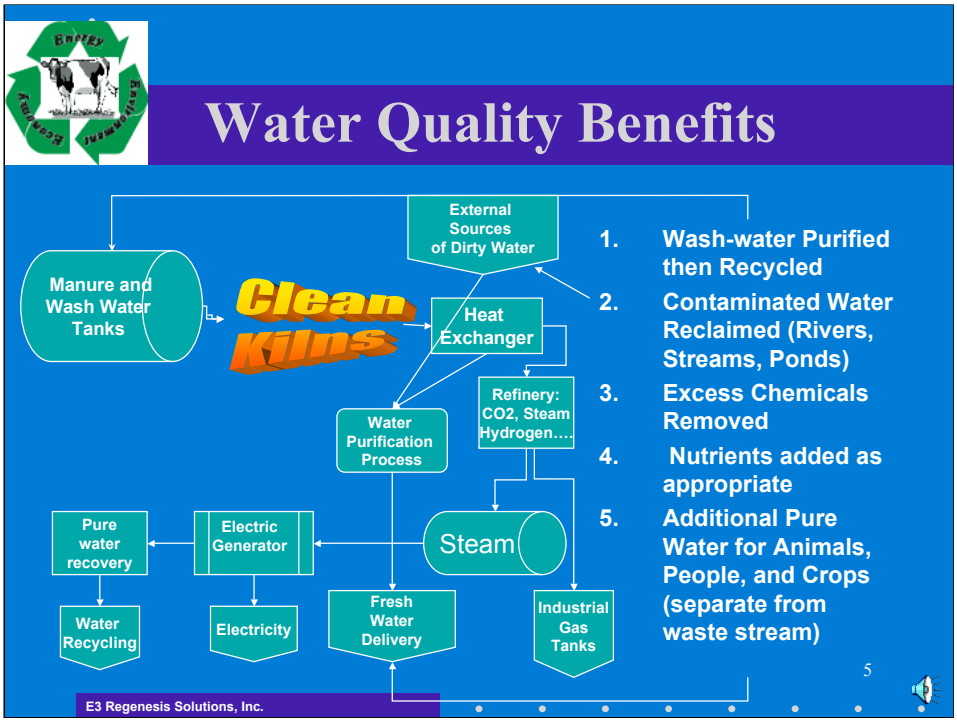
- **improve land management,**
- **improve air and water quality,**
- **produce energy and**
- **eliminate agricultural waste while**
- **producing fertilizer, dry ice, water and other products.**

A conversion system operates above 2500ºF so it can also safely eliminate all risks from dead and diseased animals -- except for the risks associated with getting the animals to the plant.



"Clearly, any attempt to encourage land to remain agriculturally viable will require options that allow landowners to reap the land value revenue they would realize from a straight non-agricultural value sale. "(ALCGCV)

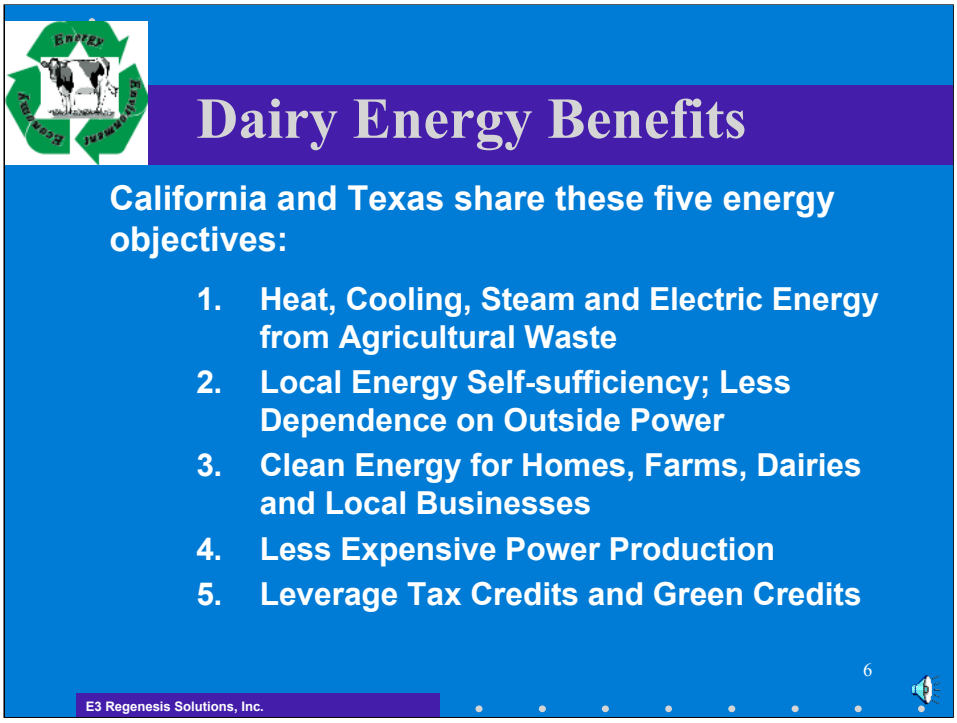
Thermal conversion solutions will make more of your land usable and make it more productive.



"In California, water quality and impaired rivers and streams are seen as point/non-point source issues. Waste management of various production systems including livestock feeding, crop production and food processing operations, is a target of attention, with animal waste a growing concern. Dairy farms, beef feedlots, poultry, and other animal operations are subject to new Environmental Protection Agency (EPA) regulations on waste management. Food processors, supermarkets, groceries, restaurants, and institutions are subject to a 50% diversion of organic waste from landfills. As San Joaquin Valley dairy farms grow in size, the Environmental Protection Agency and the Department of Agriculture are zeroing in on pollution from large animal operations in a renewed effort to clean up the water supply." (ALCGCV)

The Agritech Report recommends the following:

- **Conversion of residues into valuable products**
- **Reclamation of waste water for water** recycling and pollution control
- **Conversion of organic residues** into food, feed, chemicals, and fuels
- **Improved wastewater treatment and bioremediation** for livestock operations
- **Control gaseous emissions** and conversion of animal wastes into methane gas
- **Improved food waste management & treatment** to maximize water reuse



California Governor Schwartzenegger's Platform seeks to Solve California's Electrical Energy Crisis:

*"***An unreliable energy system** discourages businesses from locating or even remaining in California, resulting in lost jobs and state revenues."

"Almost one third of California's entire in-state generation base is over 40 years old. I will immediately lay the groundwork to expand the state's power supplies, with special emphasis on clean, renewable sources…

"Investments should be consistent with the CAL ISO's annual transmission plan and should evaluate demand, transmission, and generation alternatives… Increase Renewable Energy. As Governor, I will fully endorse **California's Renewable Portfolio Standard (RPS), which requires that 20% of the state's total power supplies be generated from renewable sources by 2017.** My Administration will also direct the California Energy Commission to define incentives and implement strategies that will target achievement of the 20% standard a full seven years early - - by 2010 - - and set the state on course to derive 33% of its power from renewable sources by 2020."

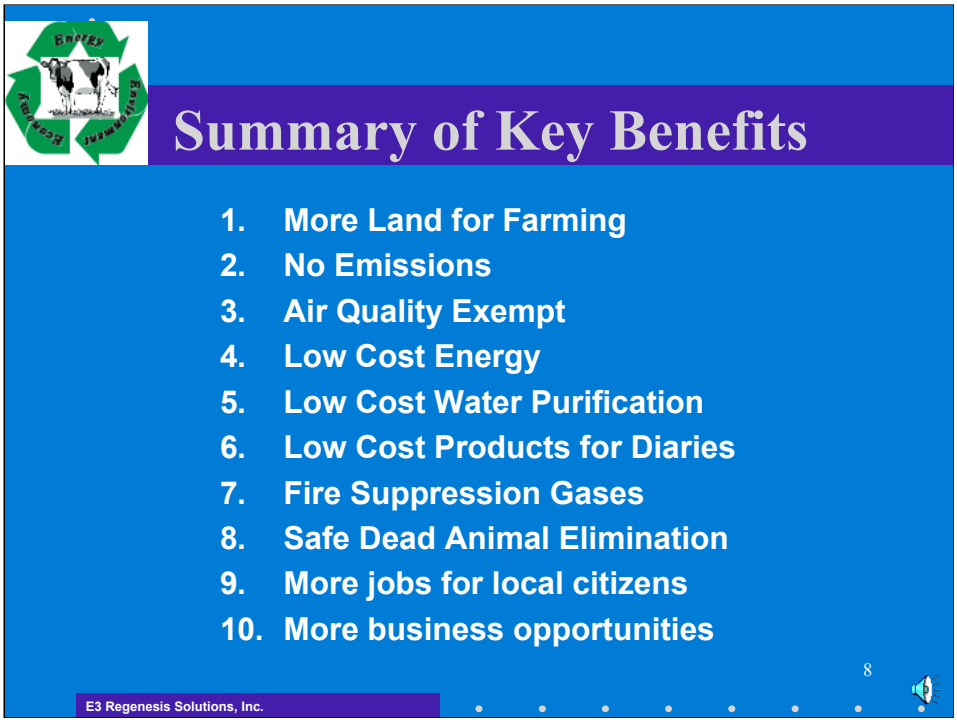
E3 Regenesis will help meet these goals. We plan to work with you to make it clear to key decision makers that this is possible by extensive use of these and other alternative energy systems.

As CO_2 is refined and cooled it becomes pure food-quality or medical quality dry ice which can be used to

- **cool equipment used in meat processing or**
- **cool milk and cheese packaging processes**
- **ship dairy and meat products safely**
- **Blast clean motors, strip paint from buildings, trucks, etc.**

CO_2 Solutions can be made into solvents for dry cleaning and for applications such as detoxifying soil.

Do you know of some other uses for CO2?



In sum, Thermal Conversion Systems offer a long list of benefits not available with standard waste processing systems or power generators.

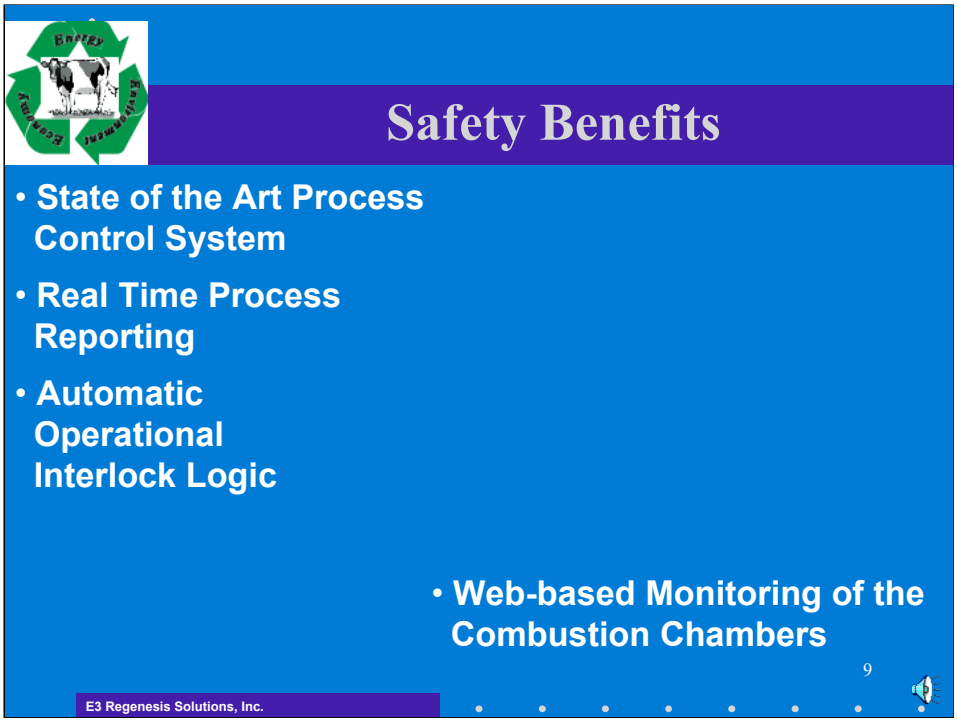
It is critical that dead animals and slaughterhouse remnants can be disposed of safely along with manure because they are rich in carbon and and because all bacteria and viruses are destroyed in the process.

Dr. Stephen F. Sundlof, Director of the Center for Veterinary Medicine at the Food and Drug Administration (FDA), tells us that the 2004 legislative proposal in Congress to stop feeding cattle products to other animals and back to cattle goes much further than previously announced proposals and should automatically remove remaining loopholes in animal feed safety.

At least 30 million American cattle are slaughtered each year.

Under the new plan, all their intestines and leftover parts will have to be destroyed (not fed to other animals, then back to cattle as these animals parts are used in cattle feed). The brains, tonsils and other risky tissues from older and diseased animals will no longer go into chicken, hog, or pet food.

In Britain, such wastes are burned with fossil fuels to make Portland cement. With thermal conversion we can convert them to energy.



When one of the kilns gets too hot, cool water is added and the temperature will be automatically adjusted.

When the feedstock mixture is too lean for oxidation, then additional fuel (methane, natural gas, etc.) is added to maintain an ideal mixture.

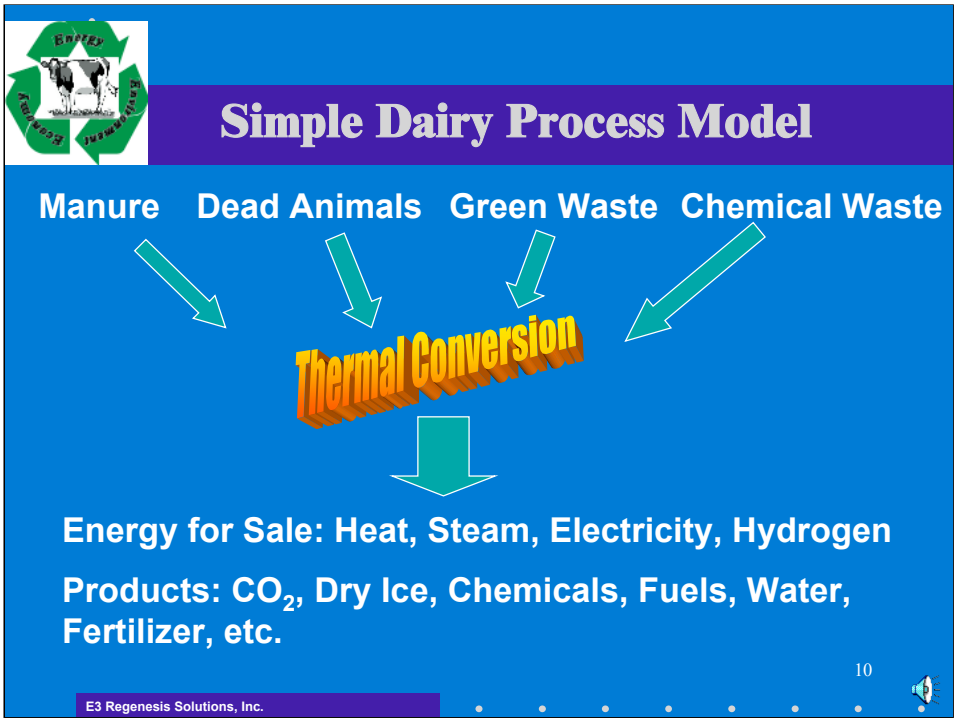
When maintenance is required, the system will notify the operator. For example, if the refractory bricks are wearing thin, then maintenance is scheduled before it becomes a problem.

In case a defect appears in one of the bricks or seals, the system can automatically shut down safely.

While we cannot override Murphy's Laws, we can anticipate their operation and be prepared when they come into play.The process is

- self-correcting,
- monitored by the operator on site, and
- monitored remotely over the internet for three levels of safety.

Operators and managers will be trained in ISO 9000 procedures to make safe and efficient processes self rewarding. The operators will feel the success of their work because the work will be designed to provide immediate rewards for following safe procedures.



CARBON DIOXIDE IS THE PRIMARY BY-PRODUCT

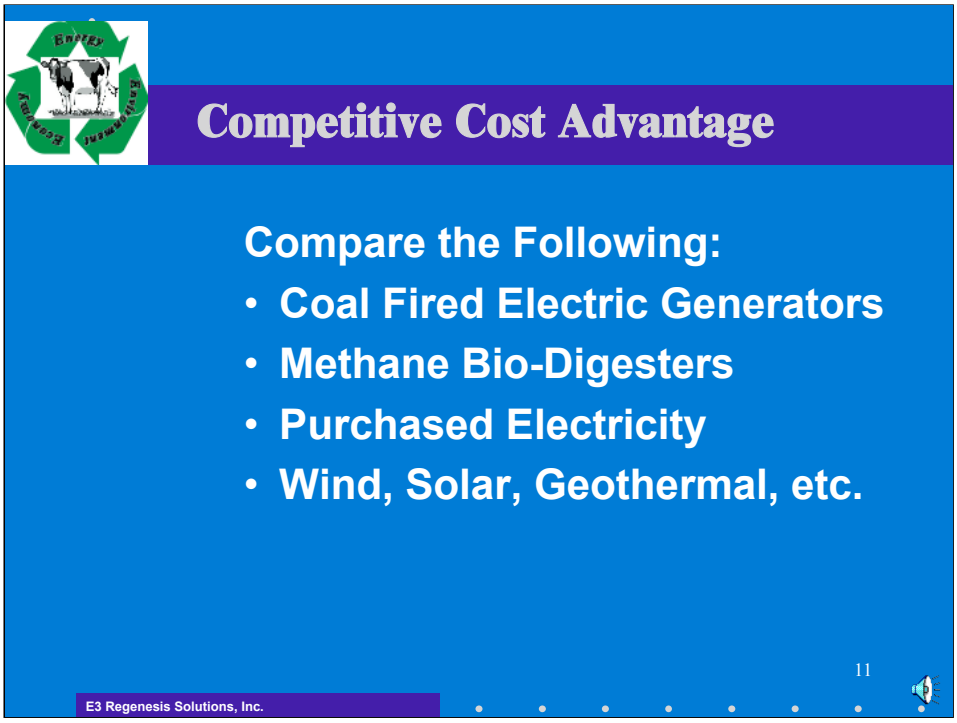
The primary commercial product derived from the Zero-emission Energy Recycling Oxidation System is carbon dioxide. After scrubbing the acidic constituents from the gas stream produced by the thermal treatment, the gas is introduced into a carbon dioxide purification system. Moisture and non-carbon dioxide gasses such as oxygen and nitrogen are separated from the carbon dioxide by this system. The carbon dioxide can be liquified for use in the oil and gas industry or solidified as "dry ice" for cryogenic industrial applications and food processing applications.

WATER AS A PROCESS PRODUCT

Water is introduced with the feedstock into the system and as a quench to moderate internal temperatures. This water is removed from the system as distilled and purified water. Additionally a quantity of approximately two pounds of water is produced from the chemical reaction within the system for every pound of fuel consumed. Hydrocarbons + O_2 = H_2O + CO_2.

OTHER PRODUCTS

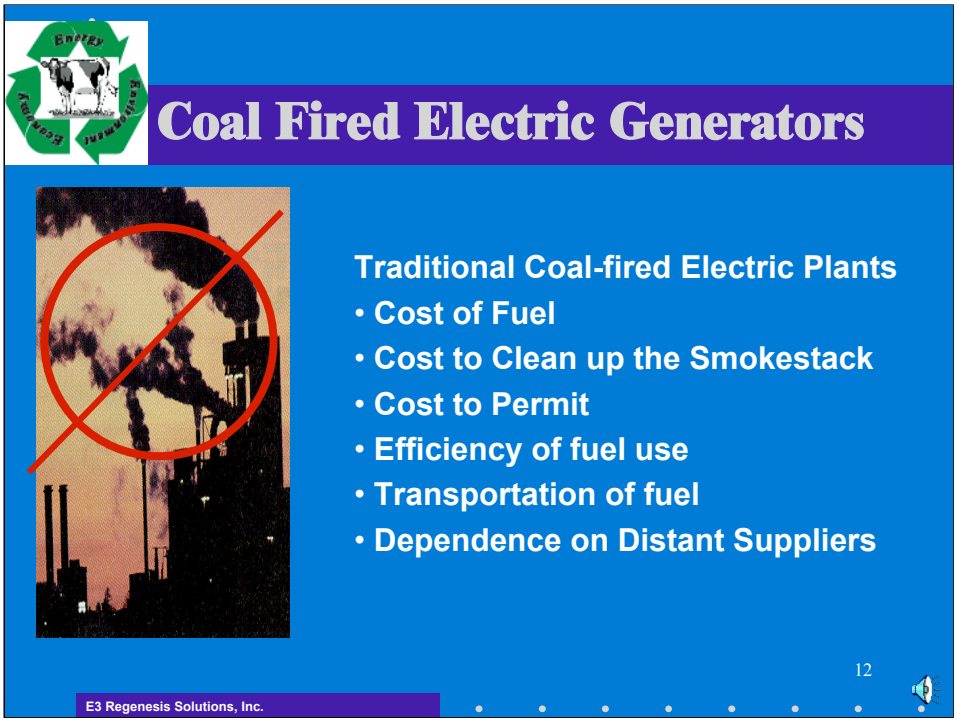
Other products include phosphorus, ammonia, some liquid nitrogen, potassium and ash (which is cleaned, mixed with cement and made into cinder blocks). Other chemicals that may be produced for sale depend upon the composition of the feedstock.



1. **Lower in cost to build and deploy than standard technologies.**
2. **Less expensive to operate than standard technologies.**
3. **Produces by-products for sale that are not available with other power plants.**
4. **Will actually complement other systems, not put them out of business.** For example, replacing the coal-burning component of a coal-fired power plant can convert it into a zero emissions plant that is more efficient.

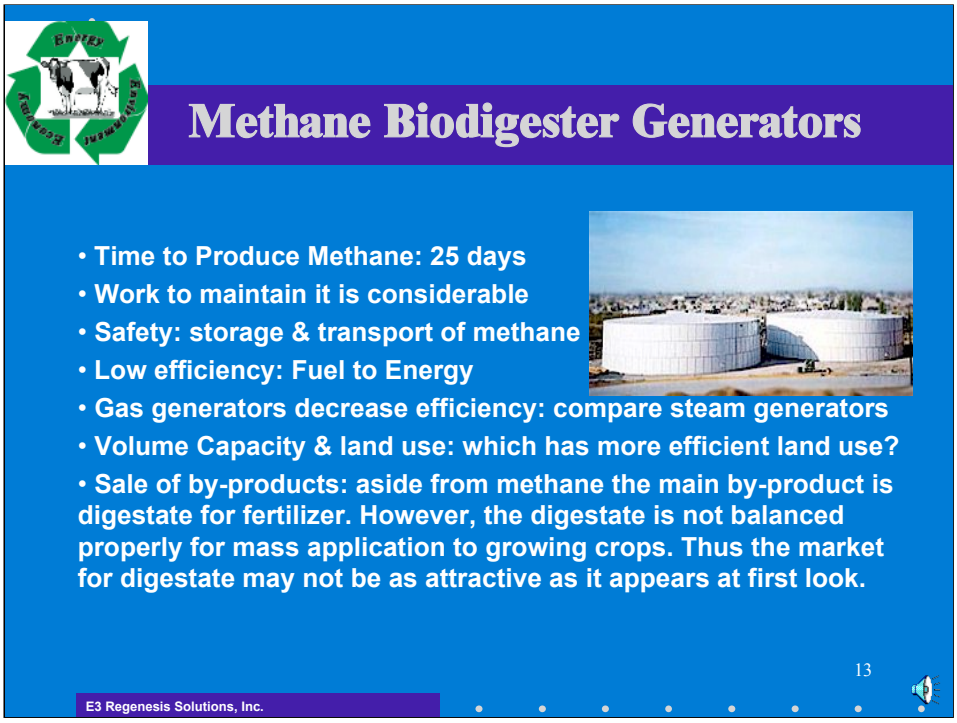
Actual cost-benefit comparisons depend upon knowing local conditions. We cannot provide an exact comparison without conducting research in a specific location.

Nevertheless, when comparisons have been made, the case was clear: thermal conversion Systems cost less and produce more benefits than conventional power generation systems.



Because there is no nitrogen introduced into the system with the oxidizing gas, as there is with incineration, the System derives approximately 250% to 300% more energy from the same amount of fuel. Thesee Systems are capable of converting any and all grades and consistencies of coal, even grades of coals that are not suitable for incineration processes.

These systems are the best available demonstrated technology for deriving energy from coal. They meets all environmental criteria and concerns. They optimize the BTU value of heat energy recovered per pound of coal. They use any and all types of coal without the need for preprocessing. All products of oxidation such as carbon dioxide, water, sulfur, mercury and minute ash are purified and recycled as products for market.



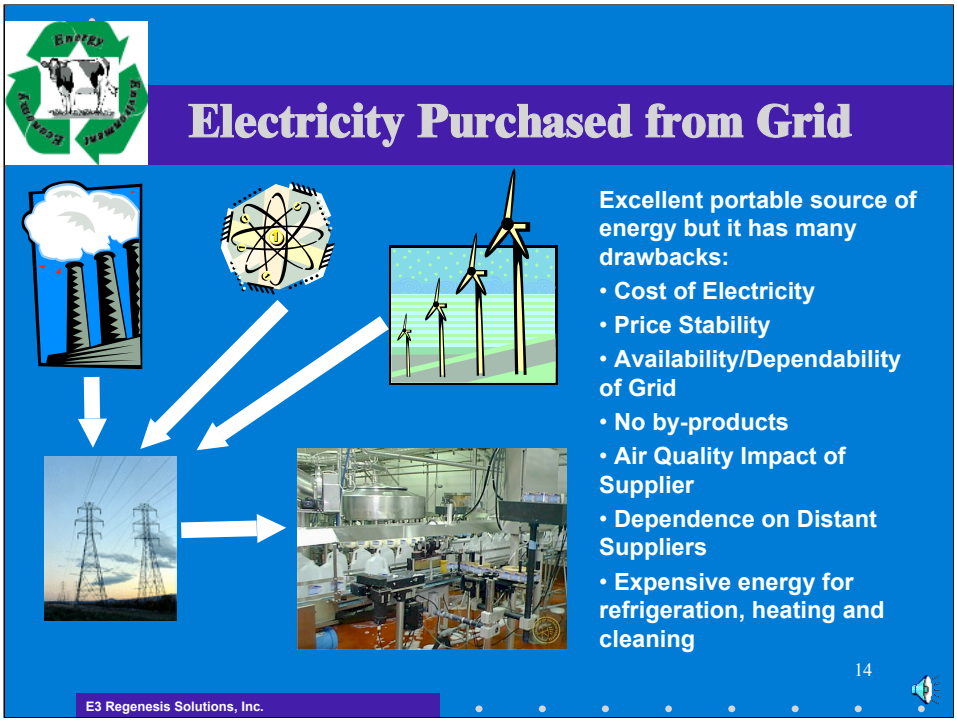
A Bio-Digester takes 25 days to process manure.

A new anaerobic digester in Chino, California, is now converting manure from 10 nearby dairies into 210,000 cubic feet of biogas per day. The biogas supplies the fuel for one of two gas-fired engine generators at the facility, generating 500 kilowatts of electricity. The digester, owned by the Inland Empire Utilities Agency (IEUA), processes 225 tons per day of fresh manure from about 3,750 cows. IEUA started up the facility in May and is using electricity produced at the site to remove salt from groundwater.

(www.greennature.com/article1600.htm)

A thermal conversion plant, processing 225 tons of dried manure a day from 3,350 cows, would produce at least 4 MW/h at 35% efficiency and 8 MH/h at 65% efficiency. The heat from the boiler that is not used for electricity could easily be used to dry the manure, desalinate or otherwise purify water directly.

In addition,a plant would produce steam for cleaning and cooking, phosphorus and potassium for fertilizer, and many other by-products.



Just for comparison, lets look at the price of electricity purchased from the grid. Lets assume it costs roughly 10 cents per KWh retail (it is rarely that inexpensive). And assume we can expect it to stay at that price for the next 10 years (not likely).

Thermal conversion plants may be able to sell electricity for 6.5 cents per KWh and still be profitable. The plant derives most of its income from sources other than the sale of electricity, so its net cost for electricity is lower than most suppliers. The price of electricity will vary from location to location because of local circumstances, but we will usually be cheaper.

It's fuel supply is local and is a source of income, not an expense: manure and other waste materials usually generate tipping fees.

The prices for the products it makes for sale are likely to go up. And there will be newer products created from waste as we gain experience and meet new customers.

Thermal conversion does not pollute like most standard power plants.

Thermal conversion utilities are local businesses. There will be nothing they have to buy from distant suppliers. Customers will have a local supply of power and a local supply of fuel for the power plant.

Geothermal, Solar and Wind power are fully renewable. No depletion of resources whatsoever. They should be used when feasible.

There will certainly be cases where these "green" technologies will be more appropriate and more profitable for specific sites. Recycling solutions that convert waste to usable materials with or without generating power are not in competition with Conversion. We encourage them and work with them. When they cannot handle the waste volume or need power that a conversion unit can provide, they and conversion operators will be allies

However, they are not always available and do not recycle waste. Conversion power plants make excellent complementary solutions. Depending upon the waste stream, Conversion output can be reduced to take advantage of power from Wind, Solar and Geothermal sources. Otherwise, the power produced can be diverted from electrical production to water purification, desalinization, and similar applications.

conversion power plants both recycle waste and relieve stress on the grid -- which otherwise would have to provide power when other renewable resources are not available.

SUMMARY CONCLUSION

The net cost of producing a kilowatt of electricity with a thermal conversion system is considerably lower than the cost of electricity produced by traditional systems.

This is because thermal conversion systems produce pure water, CO_2, and other marketable products while producing clean energy in the form of electricity, steam and heat.

Thermal conversion systems are customizable to handle local waste remediation, water purification and to produce products needed in the local market.

Any questions? Please ask.

We look forward to your questions and to exploring potential applications in your community.