



JSH international[™]
From the Earth... for the Earth[®]

Biogas

One Piece to the Energy Puzzle

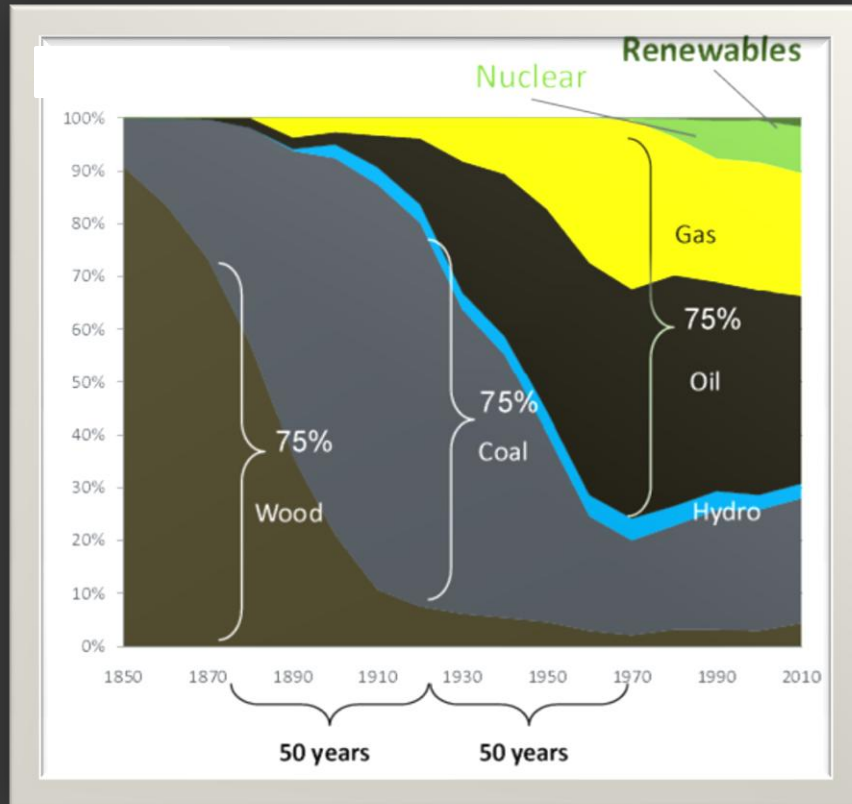
Kevin Mulvihill, CEO

NJTC Clean Energy Summit

Clean Tech vs. Cleaning Current Technologies

October 4th, 2011

History of Energy: Transformational Change

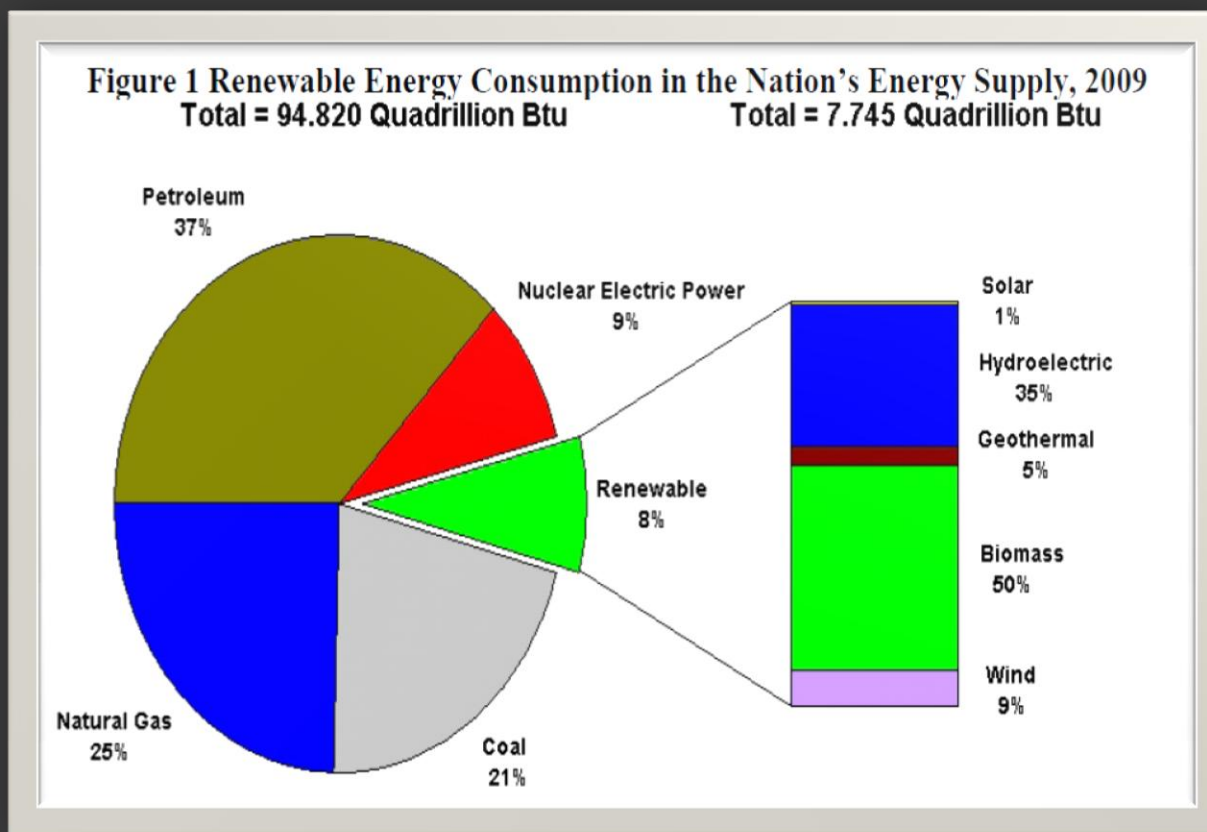


- Every 50 years, $\frac{3}{4}$ of US energy has changed
- Proves that change is achievable
- Renewables are in high demand and Clean Tech can be a way to power America.



Renewables Contribute to Our Nation's Energy Needs and are Projected to Grow

- Renewables share a total energy use projected to grow from 8% in 2009 to 14% in 2014



Clean Technology: Biogas

- Biogas is produced during the organic processes which take place in an anaerobic digester.
- Biogas generally contains 55%-75% methane and 24%-44% carbon dioxide with other gases making up 1% or less of the mixture.
- As much as 10-15% of current fossil natural gas use could potentially be displaced by 2025 if these sources and industrial organic wastes were utilized.

75 %* of the biogas potential is in the anaerobic digestion of agricultural crops, by-products and manure



17%* in municipal and industrial organic waste



8%* in sewage WWTF's



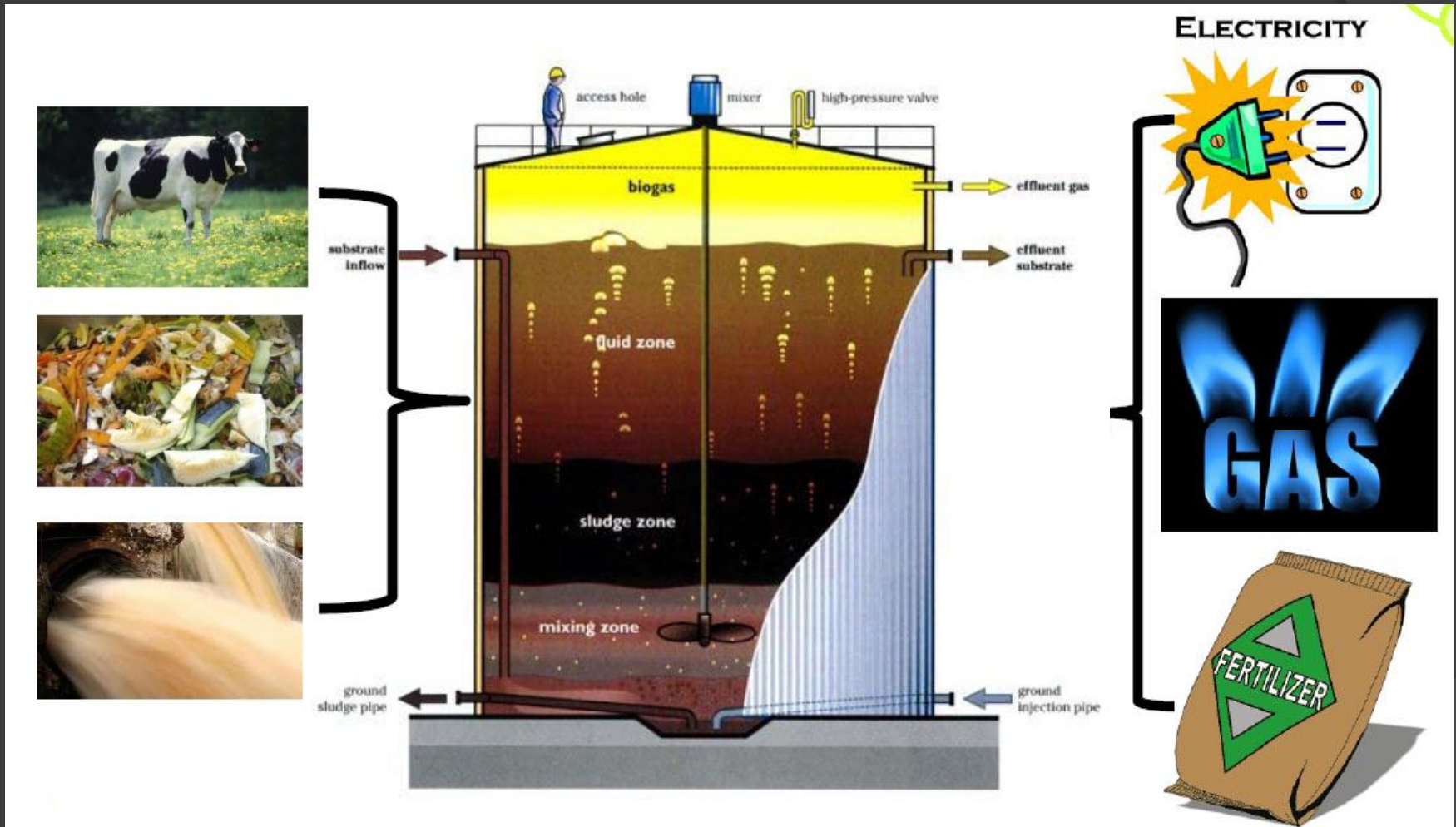
•The higher utilization rate of farmland as an energy resource could increase the share of manure, agricultural crops and by-products to 85%, leaving organic waste at 10% and WWTF's a 5% share.

•Source: Global Intelligence Alliance, "How to Profit from Biogas Market Developments"; Cited Sources: Biomass Magazine, Global Water Intelligence, American Biogas Council, Frost and Sullivan, European Biomass Association, Eurostat, Iowa State University



Biogas: Turning Waste into Energy

Anaerobic Digestion



Biogas Potential

	SCF of Methane	Homes Equivalent	kWh of Electricity
Total		6.6 Million	65 Billion
Landfills	536 Billion	5.5 Million	54 Billion
Manure Mgmt	88 Billion	894,000	8.8 Billion
Wastewater	20 Billion	200,000	2 Billion

SCF: standard cubic feet



JSH international's Clean Technology: *Biological Activity Enhancer*®

- ◉ An organic, cost reducing solution for Wastewater Systems
- ◉ Derived from naturally occurring peat, using a patented extraction process
- ◉ Increases Renewable Energy Production
 - ◉ Wastewater Treatment, Agricultural, and Industrial Anaerobic Digesters
- ◉ Results have shown increases in Methane Gas Production from 30% to more than 100%



Thank You!

- Kevin Mulvihill
- CEO, JSH international
- www.JSHinternational.net
- Office: 856.234.4540
- Email:
 - KevinM@JSHinternational.net
 - info@JSHinternational.net

