

NEW HIGH-BTU TECHNOLOGY and the recent SILOXANE CHALLENGE

Presented by:

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GREEN GAS ENERGY GROUP
(3 Affiliated Companies)

GREEN GAS ENERGY GROUP:

A.R.C. Technologies Corporation

- **Designs & Installs High-BTU Plants:
LFG Into Pipeline Quality Gas.**

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- Operates & Maintains High-Btu Plants.

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Green Gas Energy, LLC

- Obtains Landfill Gas Rights/Financing.

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3. Physical Separation of Gases by PSA:

- QuestAir or Guild/Engelhard or ARC.

PRESSURE SWING ADSORPTION ("PSA") TECHNOLOGY

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 - **Separates Gases by Molecular Sizes.**
- **Molecular Sizes Measured in Angstroms:**
 - **Angstrom = One Ten-Billionth of a Meter.**

**METHANE:
HAS LARGEST MOLECULAR
SIZE OF LANDFILL GASES**

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- Think of Many Tiny Wiffle Balls with Surface Holes Having 3.7 angstrom Diameter.
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- Non-Methane Gases Go Into Adsorbent Material and Methane Passes Through.

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- Size 1: Standardized, skids & expandable.

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- ARC's second stage PSA targeting O₂/N₂ enables pipeline quality gas w/o blending.

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- Automatically adjusts retention times in PSA vessels for changes in gas content.
- Auto re-start and sends text alarms to cell phones if parameters exceeded.

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- ARC's Plant's product gas is $< 8\%$ of the allowed 0.4% .