Biogas versus Natural Gas
Cara Berner(RBE), George Castronova(EVE), Lailah Thompson(IE)
Advisor: Professor Sharon Wulf(School of Business) & Professor Derren Rosbach (Civil & Environmental)

Problem Statement

Mechanism

A major issue that faces the world’s clean water is the chemical runoff and waste water from hydraulic fracturing. An economical and ecological solution would be to use biogas to replace our energy needs facilitated by natural gas extracted through hydrofracturing.

Our solution entails taking a holistic approach but places particular emphasis on the use of biogas as an alternative for natural gas acquired through hydrofracturing

Proposal

Survey Results

42% don’t know about biogas Only 1% don’t know about natural gas

Survey: 10 questions; target pop(undergrads & 30+ w/ families) Contacting People via phone/email; describing background; distribute report

Promotional Plans

Getting Responses! 100 survey responses 65% response from contacted organizations/companies

Assessment Plans

Methodology

Survey

Research on natural gas & biogas. Comparing them economical, politically & ecologically

Resorting to the public to make change and create a demand. Measure awareness before spreading it.

Two Target Populations: undergrads & older generation (30 + w/ families).

Emphasis on one part of the solution. Phasing out natural gas with biogas.

Drafting an analysis & sending report to organizations.

Summary

Fossil Fuels will continue to dominant energy market seeing as they receive more subsidies and tax breaks. Biogas could be the next big energy source if awareness is raised and people are educated about the benefits. Our plan of biogas from waste water has already been implemented around the nation

• Biogas can be created from Landfills, Municipal Waste Water, and Agricultural Waste
• Biogas production from municipal waste water cleans the water while creating a viable energy source, addressing two problems at once
• Biogas from Waste Water has been successfully implemented at 485 plants around the nation

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Background

• Fossil Fuel extraction is one of the biggest wasters of water
• For gas wells, the waste water (barrels: cubic feet) was 260: 1 million cubic feet.
• In 2007, the daily output of the U.S. gas industry was 66 billion ft³ : 58 million barrels of waste water

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