



*Projects to Pursue:*  
*Houston Brewery Landfill Gas*  
*Anheuser-Busch Companies, Inc.*



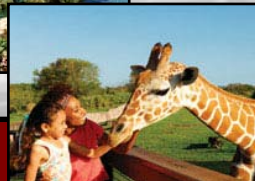
**October, 2008**  
**Climate Leaders Partners Meeting**

*Angie Slaughter*



# Anheuser-Busch Companies

- **Brewing**
  - 12 US breweries, 15 overseas
  - 48.5% of US beer sales
  - 11.5% of global beer sales
  - More than 30,000 employees
- **Packaging**
  - Aluminum cans and lids, glass bottles and bottle labels
  - Aluminum can recycling
- **Entertainment**
  - SeaWorld, Busch Gardens, Discovery Cove and Aquatica







# A Long History of Environmental Stewardship

- Improving efficiency, minimizing waste and supporting conservation efforts for more than 100 years
  - Recycling
    - Leftover grain recycled into cattle feed since 1899
    - Recycling 99% of solid waste at our breweries
    - A-B Recycling Corporation
  - Energy conservation/renewable energy
    - BERS renewable energy provides 15% of fuel needs where installed
    - 1 in 7 U.S. beers expected to be brewed with renewable fuel in 2009\*

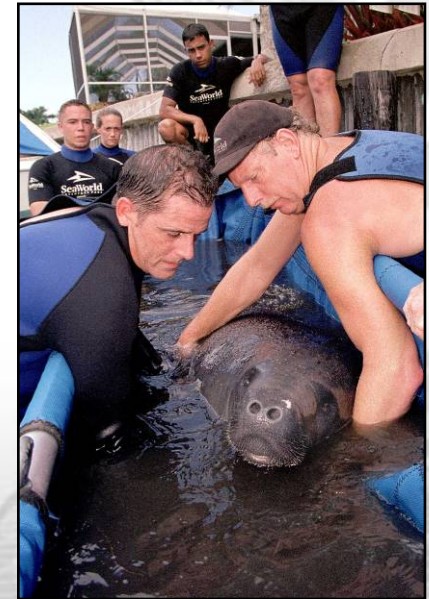


\* 1 in 7 U.S. beers is derived from taking the company's 2007 U.S. beer production, converting to equivalent 12-oz servings and multiplying by the estimated percentage of renewable fuel the company plans to use at its U.S. breweries in 2009



# A Long History of Environmental Stewardship

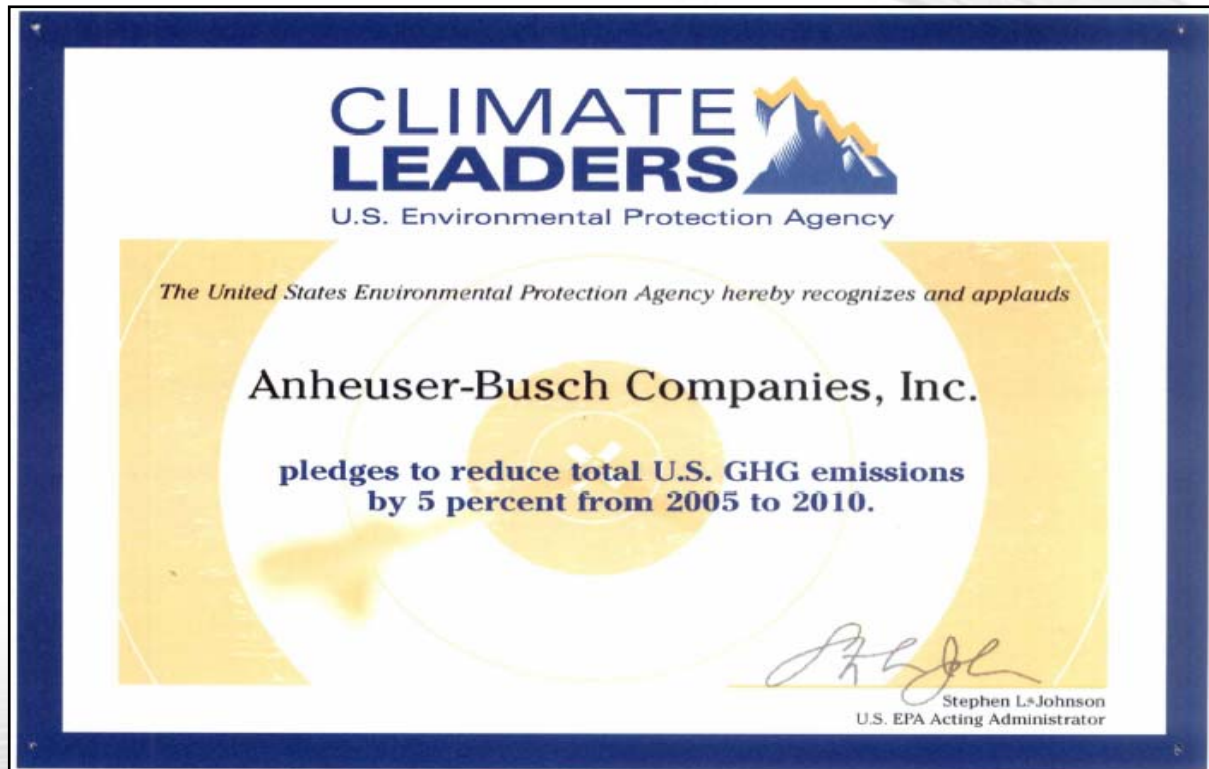
- Water conservation
  - Water use declined 7 percent in last 5 years, 30 million equivalent showers
- Wildlife and habitat preservation
  - Leaders in animal rescue and rehabilitation
  - More than 15,000 animals rescued since 1970





# 2010 Energy and Climate Change Goals

- 1% annual reduction in total energy use
- 5% reduction in greenhouse gases (2005 base)
- 15% of total fuel needs provided through renewable energy







# Our Partnership with U.S. EPA LMOP



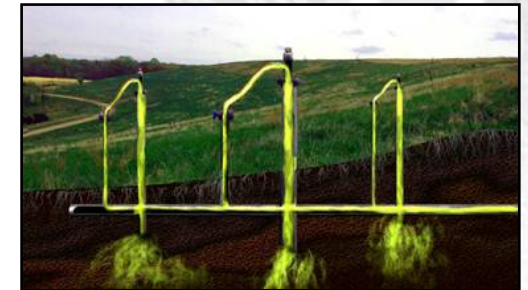
- Anheuser-Busch has been an Energy Partner with the U.S. EPA's Landfill Methane Outreach Program (LMOP) since 2006.
- LMOP is a voluntary assistance and partnership program formed in 1995. Its goal is to reduce methane emissions by promoting the use of landfill gas as a renewable energy resource.





# Landfill Gas Background

- Landfill gas (LFG) is a by-product of the decomposition of municipal solid waste (MSW)
  - Approximately 50% methane ( $\text{CH}_4$ ), 50% carbon dioxide ( $\text{CO}_2$ ), and a small fraction of non-methane organic compounds
- For every 1 million tons of MSW:
  - ~0.8 MW of electricity
  - ~432,000 cubic feet per day of LFG
- Landfills are the second-largest U.S. human-made source of methane (~23%)





# Companies Using Landfill Gas

Honeywell

NUCOR

HILL  
AIR FORCE BASE, Utah  
OGDEN AIR LOGISTICS CENTER

DART

CYTEC

Cargill

SENECA Foods.com  
"A World Leader In Agribusiness"



Owens Corning

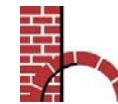


Rolls-Royce



The Ultimate Driving Machine

The Solae Company



Jenkins Brick Company

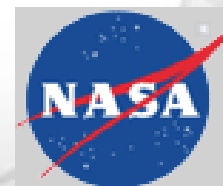
CONE corporate denim finishing jacquards

LAFARGE

AJINOMOTO

INTERNATIONAL PAPER

From innovation to results.



INTERFACE

MALLINCKRODT



The miracles of science

Lucent Technologies  
Bell Labs Innovations



SC Johnson



CHRYSLER







# Houston Landfill Gas Project

- Identified potential through LMOP and partnered with McCarty Road Landfill and Ameresco to develop project
- McCarty Road Landfill
  - Established 1976, site extension through 2025
  - Currently flaring 1,300MM BTUs annually of LFG
  - 6 miles from Brewery
- Construction underway, start-up in 2008
- LFG will offset natural gas utilized in boilers for heat and steam in the brewing process
- The combination of LFG and biogas will provide more than 70% of the brewery's fuel demand



# Houston Landfill Gas Project

- Ameresco Scope



- Install LFG collection / delivery infrastructure
- Install 6 miles of underground pipeline from the landfill site to a filter station at the Brewery
- Pipeline is financed, installed and owned by Ameresco

- A-B Scope

- Install above ground piping from the filter station to four boilers
- Install fuel trains, burner and control system upgrades for LFG firing





# Ameresco

- 30 years experience
- \$4 Billion in energy solutions
  - 13 LFG projects (BMW, Nestles, Ford, Goldkist...)
- Over \$1 Billion in projects currently in development/ construction
- 550 energy professionals in 56 North American offices
- 2007, 2004, 2003 LMOP's Industry Partner of the Year



AMERESCO

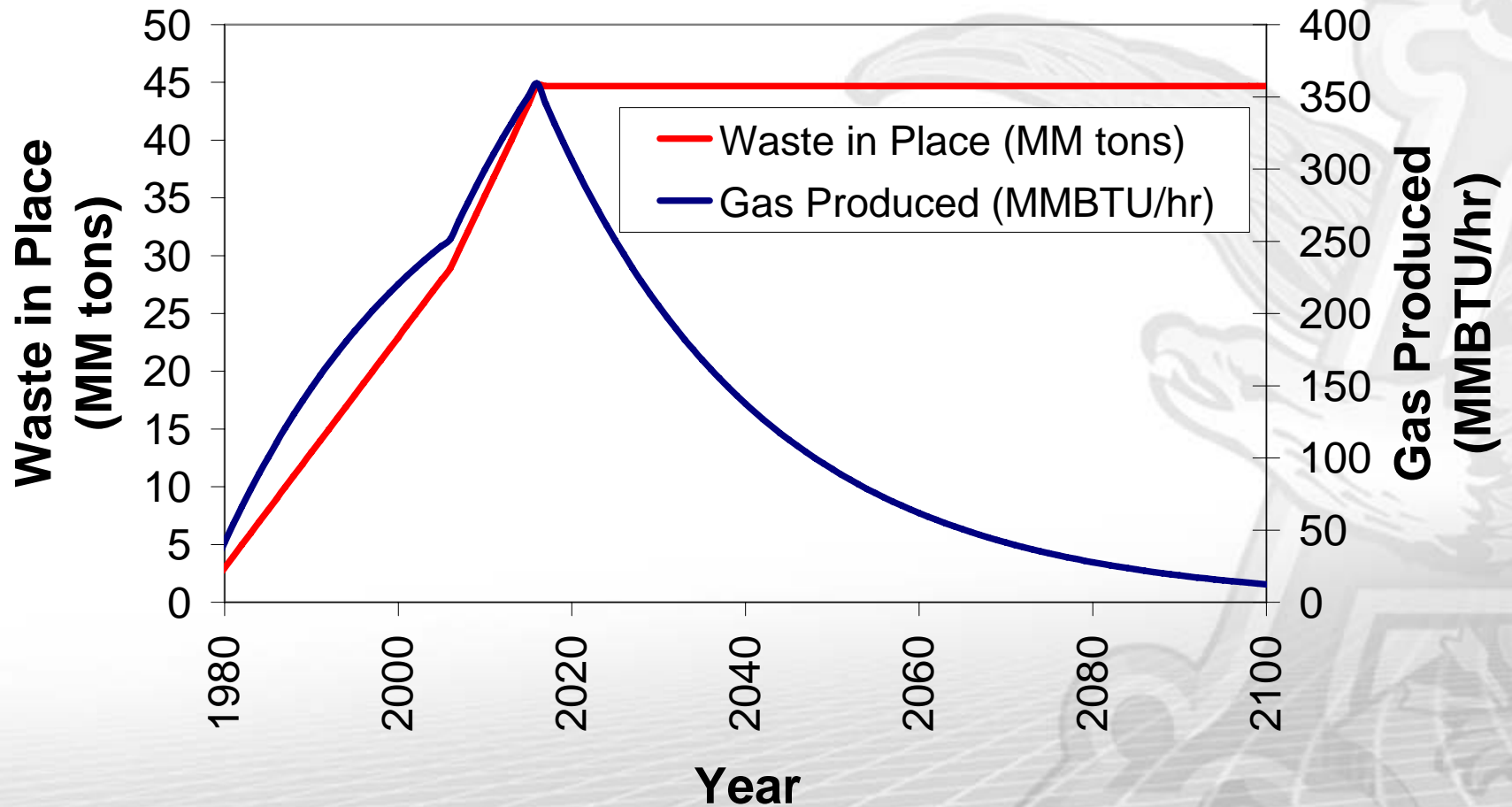






# McCarty Road Theoretical LFG Production

- LFG volume represents more than 60% of Brewery's natural gas demand

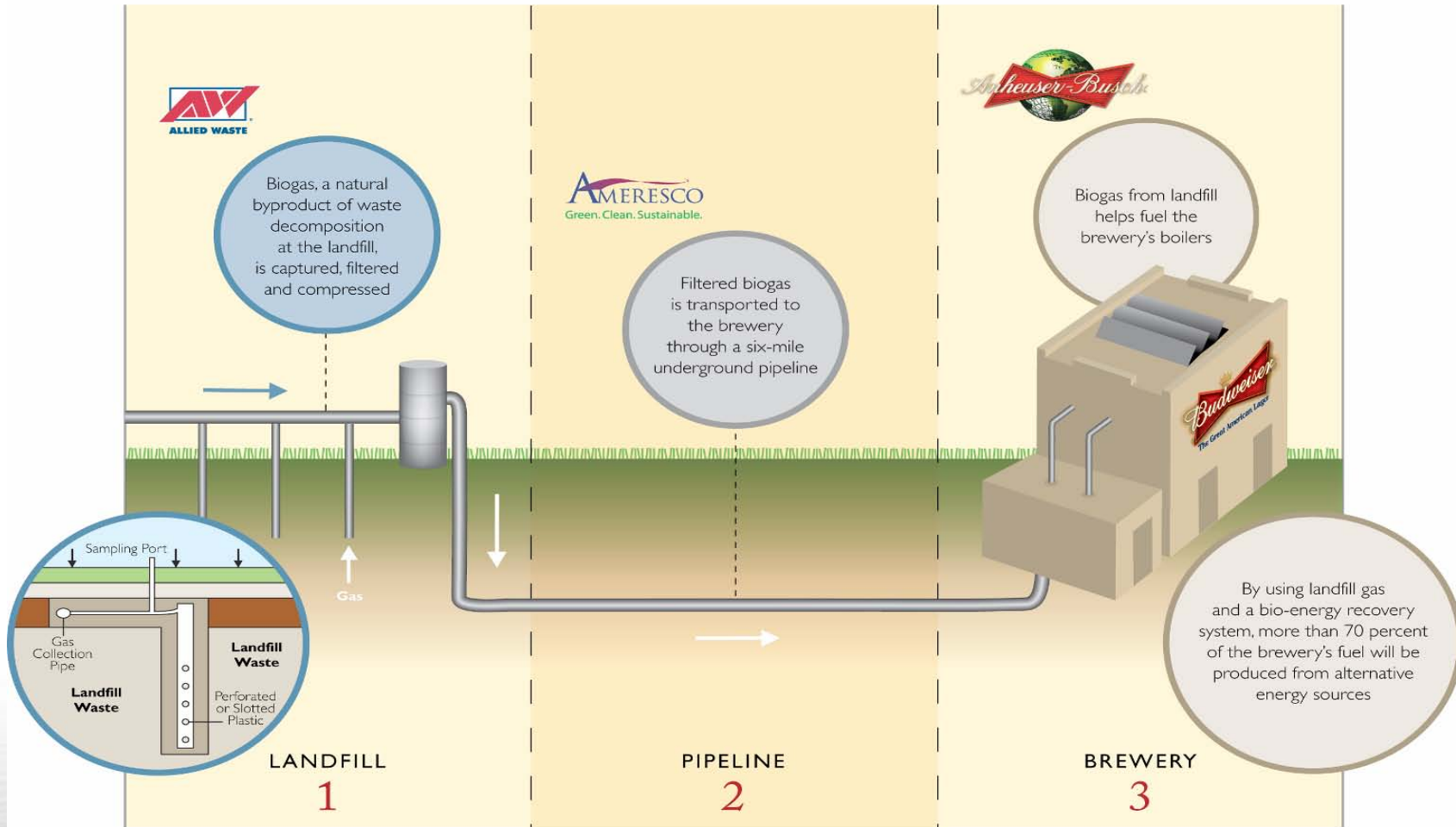




# Houston Landfill Gas Project

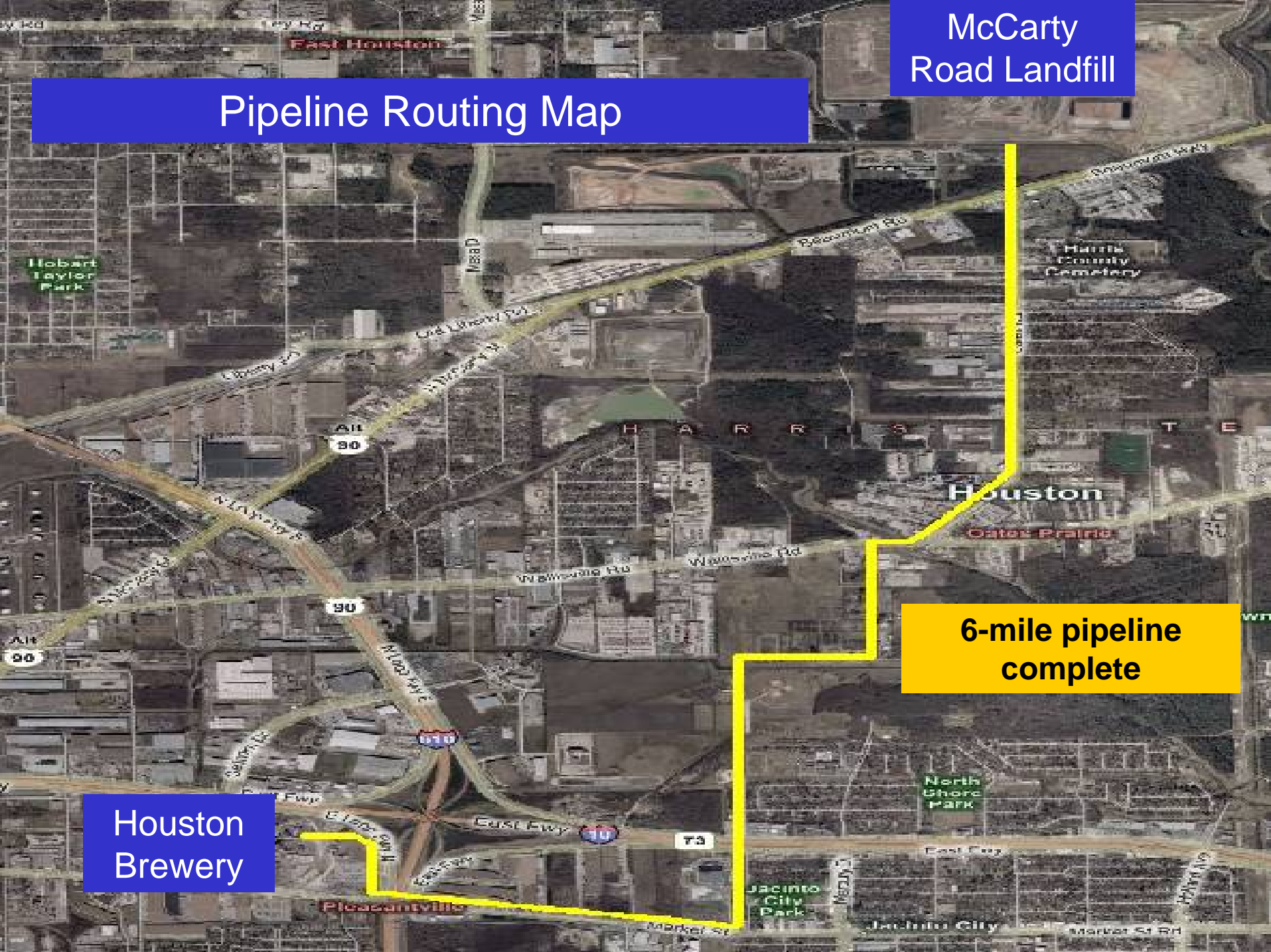
ANHEUSER-BUSCH, INC.

## Houston Brewery Utilizes Landfill Gas



McCarty  
Road Landfill

# Pipeline Routing Map



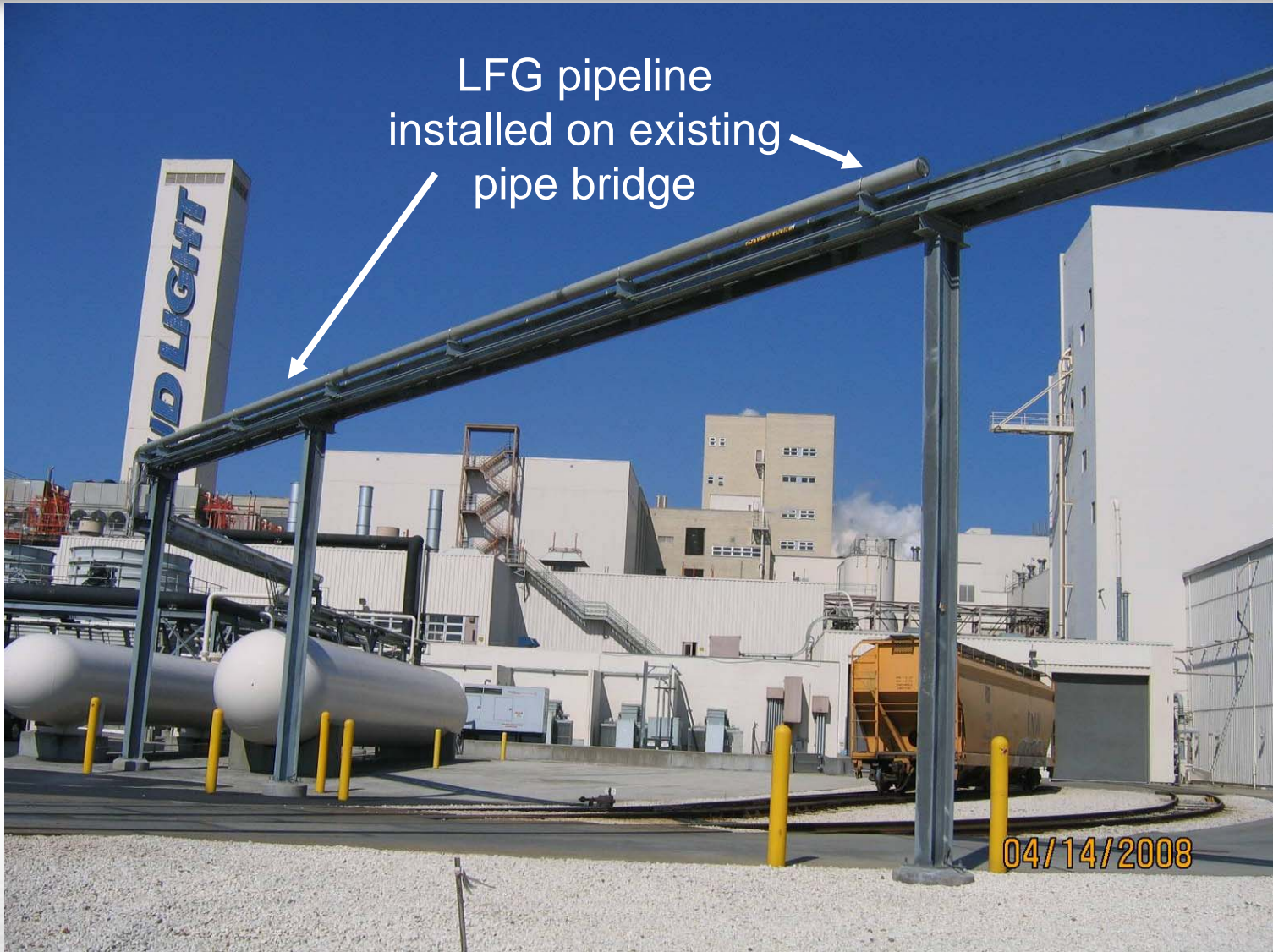
6-mile pipeline  
complete

Houston  
Brewery





# Houston Landfill Gas Project



LFG pipeline  
installed on existing  
pipe bridge

04/14/2008





# Houston Landfill Gas Project



Boiler #6 burner ready for re-installation







# Houston Landfill Gas Project

## Ameresco pipeline construction







# Example Structure of LFG Agreements

- **Gas Distribution Company Arrangement**
  - Landfills partner with gas distribution companies who identify end users and price the capital cost of the pipeline/equipment into the gas cost
  - Delivered LFG typically sells at a discount of about 10-20% compared to natural gas prices
  - The gas distribution company collects any tax incentives
- **Direct Agreement Between Landfill and End User**
  - An end user industry partner pays the capital cost of the pipeline, partially offset by incentives
  - The landfill provides the LFG to the end user for a minimal price (<\$1/MMBTU)



# Houston Landfill Gas Contract

- Direct contract with Ameresco
- Multi-year agreement with options for extensions
- Fixed gas price
- Incentives for A-B to maximize LFG use at the Brewery
- Terms that ensure Ameresco has favorable economics to participate in project





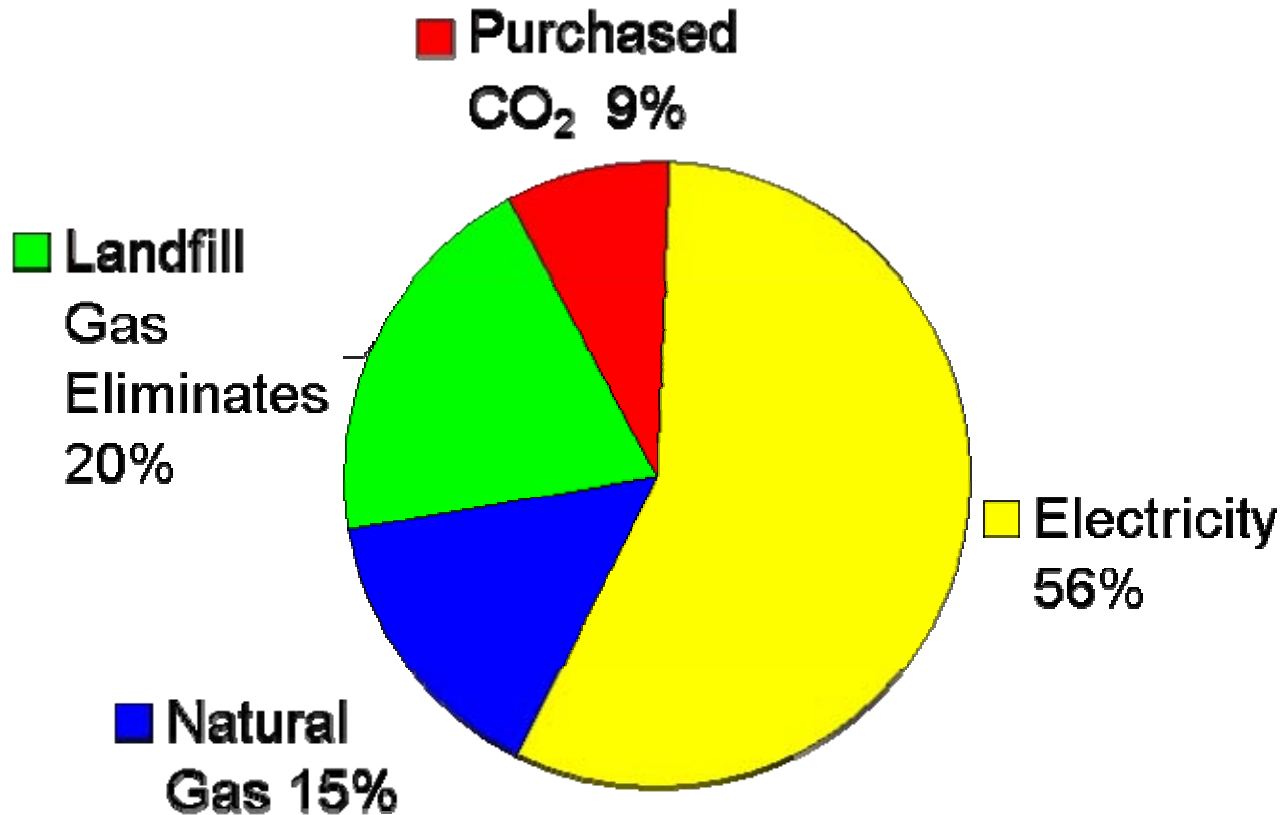
## Houston Landfill Gas – Expected Benefits

- Fuel savings, cost hedging
- Sustainable fuel supply, generated 24/7
- Offset to natural gas use = greenhouse gas reductions
- Supports Company-wide 15% renewable fuel goal
- Reduction of local NOx emissions in a severe non-attainment area





# LFG Impact to Houston Brewery GHG Emissions





# Summary



- Anheuser-Busch has a long and rich history of environmental stewardship
- We continue to evaluate strategies to reduce our environmental impacts while maintaining our quality standards – researching LFG at additional sites
- LFG is a recognized renewable energy resource and can help you reach your Climate Leaders goal
  - *Green-e*, EPA Green Power Partnership, 31 states, Sierra Club, etc.
- The Houston Brewery LFG project will result in renewables providing more than 70% of the fuel demand



# Thank-you! & Questions?



Please learn more about our efforts at:  
[www.ourpledge.com](http://www.ourpledge.com)