

---

# Regulatory Perspectives on Biogas Production in CA

*California BioEnergy • Napa, CA • April 19, 2007*

---

Scott Anders  
Director  
Energy Policy Initiatives Center



---

# Presentation Overview

- About EPIC
- Biogas Project Overview
- Perspectives on the Issue
- Regulatory Issues
- Possible Areas of Change
- Regulatory Issue Matrix

---

# About EPIC

- Academic and Research Center
  - University of San Diego School of Law
- Mission
  - Educate the public and public officials concerning energy issues and policies;
  - Educate law school students about energy law and policy;
  - Conduct research and analysis on energy trends, policy options and their implications; and,
  - Encourage the use and development of less costly and more environmentally-friendly energy resources.

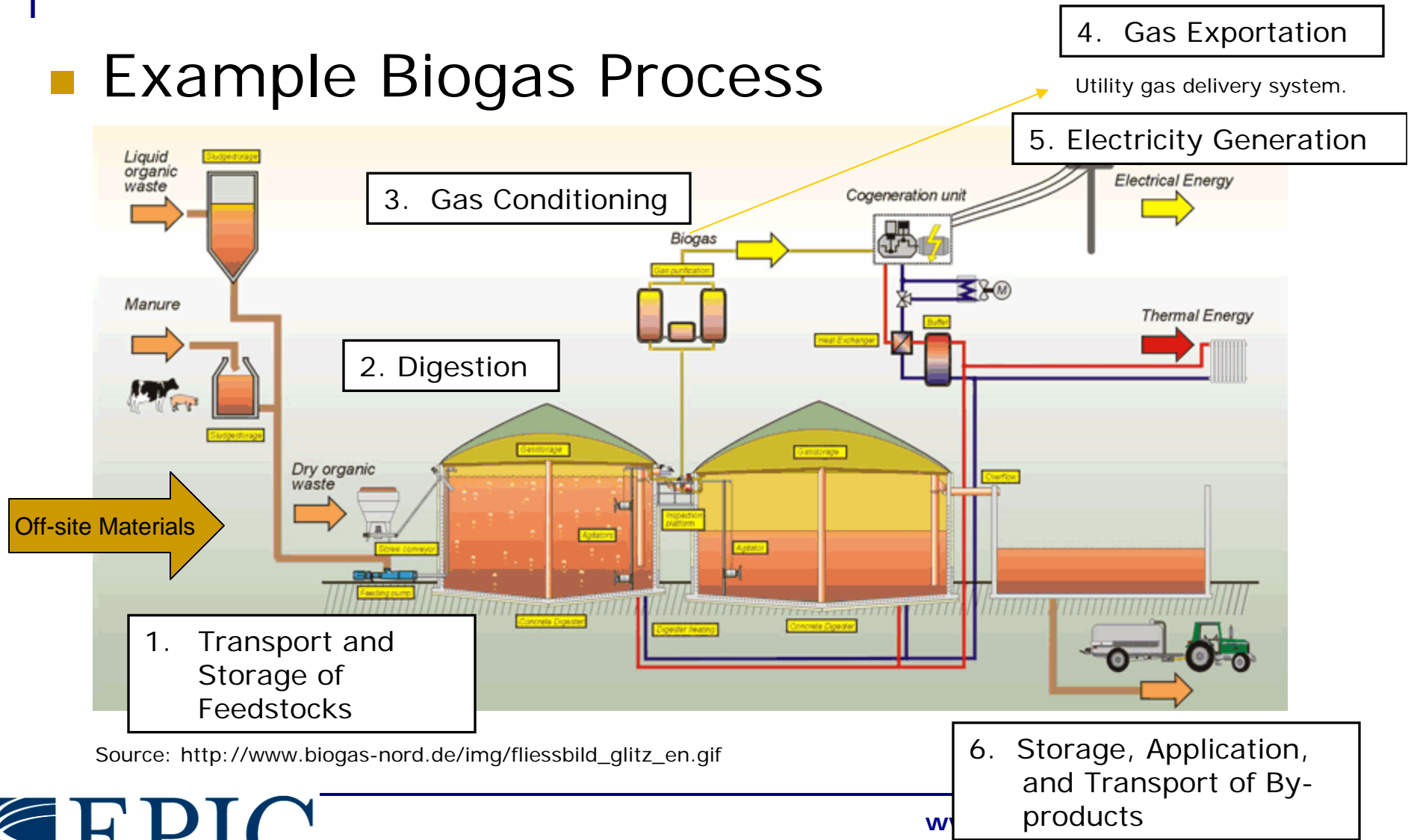
---

# Biogas Project Overview

- Objective
  - Identify regulatory challenges to producing biogas on dairy farms via co-digestion
    - Assess the entire production cycle
- Method
  - Literature Review
  - Statutory Review
  - Regulatory Code Review
  - Stakeholder Interviews

# Biogas Project Overview

## ■ Example Biogas Process



Source: [http://www.biogas-nord.de/img/fliessbild\\_glitz\\_en.gif](http://www.biogas-nord.de/img/fliessbild_glitz_en.gif)

# Regulatory Landscape

- WASTE
  - CA Integrated Waste Management Board (CIWMB)
    - Implementing Local Enforcement Agencies
- WATER
  - State Water Resources Control Board
    - 9 Regional Boards
    - Region Board 5 has a significant number of dairy farms
- AIR
  - CA Air Resources Board (ARB)
    - 35 Local AQMDs / APCDs
- ELECTRICITY / GAS
  - CA Public Utilities Commission (CPUC)

---

# Perspectives of Regulators

- Bottom Line is to Protect
  - Human Health
  - Environment
- Enforcing Current Laws/Rules
- Accommodating New technologies in the Absence of Specific Regulations
- Working on Solutions
- Need for Deliberative, Public Process

# Perspectives of Biogas Project Owners

- Innovative Technology
- Net Environmental Benefit
- Regulations not Keeping Pace with Technology
- Inaction is a Barrier to Progress
- Trying to Fulfill Policy Directions

---

# Water

- Region 5 General Order for Existing Dairy Farms Pending
- Requirements for New Lagoons
- Regulations Focus on Lagoons
- Concern over Off-site Materials (CEQA)
- Salt is Significant Issue

---

# Solid Waste

- Anaerobic Digestion Considered Composting
- Lack of Regulations for Anaerobic Digestion
- Lack of Anaerobic Digestion or Biogas Definitions
- Exclusions and Exemptions
  - Exclusions exist for:
    - Conversion
    - Manufacturing
    - Beneficial Use

# Air

- NOx Emissions Requirement for Distributed Generation
- SB 1298 Standards Create a Gray Area for Biogas Generators
- Can't Increase Criteria Pollutants Even if Lower GHG Emissions
- Possible Need for H<sub>2</sub>S Scrubbers and Catalytic Controls

---

# Electricity

- Interconnection Cost and Complexity
- Rule 21 Implementation Inconsistency
- Net Metering Tariff Disadvantages
- Self-Generation Incentive Program Complexity
- Rules for Excess Power

---

# Gas

- Interconnection Protocols
- Gas Quality Specifications
- Gas Conditioning

# Possible Areas of Change

- Legislative
  - Medium Term
  - Uncertainty in Legislative Process
- Regulatory
  - Possibly Faster
  - Scope may be Constrained
- Implementation (Agency)
  - Near term
  - Impact may be Limited
- Project Design
  - May be Costly and Affect Project Economics

---

# Issue Matrix Discussion

- List of Regulatory Issues for Discussion
- Intention is to
  - Introduce issues for discussion and possible resolution
  - Determine whether issues have merit
- We Are Certain That...
  - List is incomplete
  - List does not capture all the nuances of every issue

---

# Thank You

Scott Anders

619-260-4589

[scottanders@sandiego.edu](mailto:scottanders@sandiego.edu)

[www.sandiego.edu/epic](http://www.sandiego.edu/epic)