Southern California Gas Company

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CEC Staff Workshop on Challenges to Procuring Biomethane in California

Jim Lucas

Market Development Manager - Biofuels

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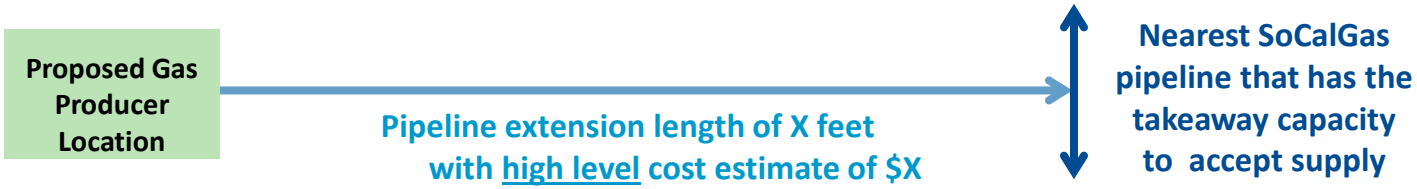
Overview

1) Interconnection Topics
   1) Access to SoCalGas' Pipeline System
   2) High Pressure Pipeline Facility Maps
   3) Contributions in Aid of Construction (CIAC)
2) Breakdown of Costs to Inject Biomethane into the Pipeline
3) Challenges to Produce Biomethane
4) SoCalGas Proposed Biogas Conditioning/Upgrading Services (BCS) Tariff

Interconnection - Access to SoCalGas Pipeline System

1) Stage-gate process designed to provide information needed to determine if interconnector wants to proceed

   A. **Interconnection Capacity Study -** determines SoCalGas' takeaway capability to accept interconnector gas (and estimated cost to expand if necessary)
      - Keep in mind:
        - Adjacent line to project doesn't guarantee injection acceptance
        - It is **very costly** to install pipelines in the public right of way
        - Detail is important (e.g. – precise project location, volumes are critical)



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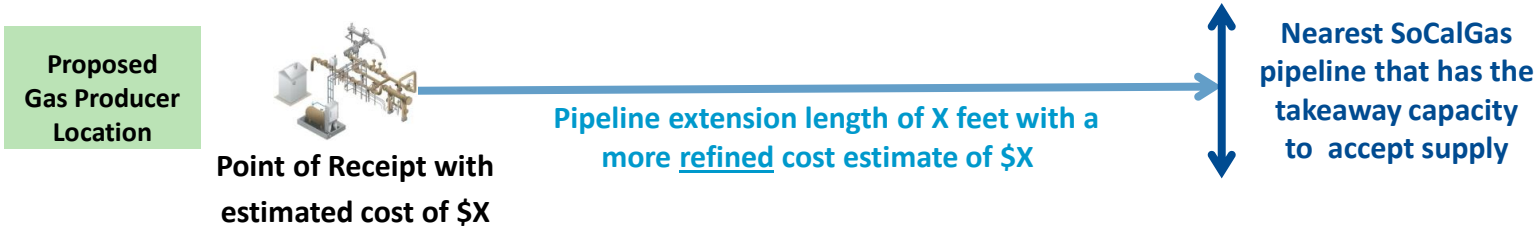
Interconnection - Access to SoCalGas Pipeline System

1) Stage-gate process designed to provide information needed to determine if interconnector wants to proceed

   B. Preliminary Engineering Study - more detailed study which includes cost estimate for Gas Quality Monitoring and Measurement Facilities (Point of Receipt)



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Interconnection - Access to SoCalGas Pipeline System

1) Stage-gate process designed to provide information needed to determine if interconnector wants to proceed

   C. **Detailed Engineering Study -** describes all costs of construction, develop complete engineering construction drawings, and prepare all permit applications

   Go ☑ **Stop** ☐

2) Authorization and Funding

   Funding Options: Interconnector may elect to either:

   A. Pay 100% of the costs to the utility, including applicable CIAC taxes, to complete the installation of the necessary facility

   B. Pay 100% of the costs to the Utility to complete the installation of the necessary facility, receive a refund of those advanced funds after gas first flows through the receipt point, and be charged an incremental reservation rate on a going forward basis

   C. Install the necessary facility themselves under the direction of the Utility and transfer ownership of the facilities, along with payment for utility supervision and any applicable CIAC taxes

Interconnection - Access to SoCalGas Pipeline System

3) Construction

- Completed by utility or interconnector, depends on the funding option selected by interconnector

4) Reconciliation of Costs

- Interconnector is responsible for 100% of actual costs

A Few Keys to Ensure a Smooth Process

- Involve SoCalGas as early as possible, generally at least 18-24 months in advance of desired in service date
- Option to design/build generally works smoother if SoCalGas is elected to provide the design and Interconnector builds

Interconnection - Gas Transmission and High Pressure Distribution Pipeline Interactive Map

Gas Transmission and High Pressure Distribution Pipeline Interactive Map - LA

Find Address Enter your zip code or address.

Dark Blue Transmission Lines: Generally large diameter pipelines that operate at pressures above 200 psi and transport gas from supply points to the gas distribution system.

Light Blue High Pressure Distribution Lines: Pipelines that operate at pressures above 60 psi and deliver gas in smaller volumes to the lower pressure distribution system.

Reminder: Existence of a gas line does not mean it has the necessary capacity!

- SoCalGas has an interactive webpage where the user can type in an address and it will show the nearest high pressure pipeline(s)

  http://www.socalgas.com/safety/pipeline-maps/

- There is also a "National Pipeline Mapping System" that shows high pressure pipelines across the United States

  https://www.npms.phmsa.dot.gov/

Interconnection – Contributions in Aid of Construction

Contributions in Aid of Construction (CIAC)

- All property, including money, received by a Utility from an eligible customer to provide for the installation, improvement, replacement, or expansion of Utility facilities (such as an interconnection facility)

Income Tax Component of Contributions and Advances (ITCCA)

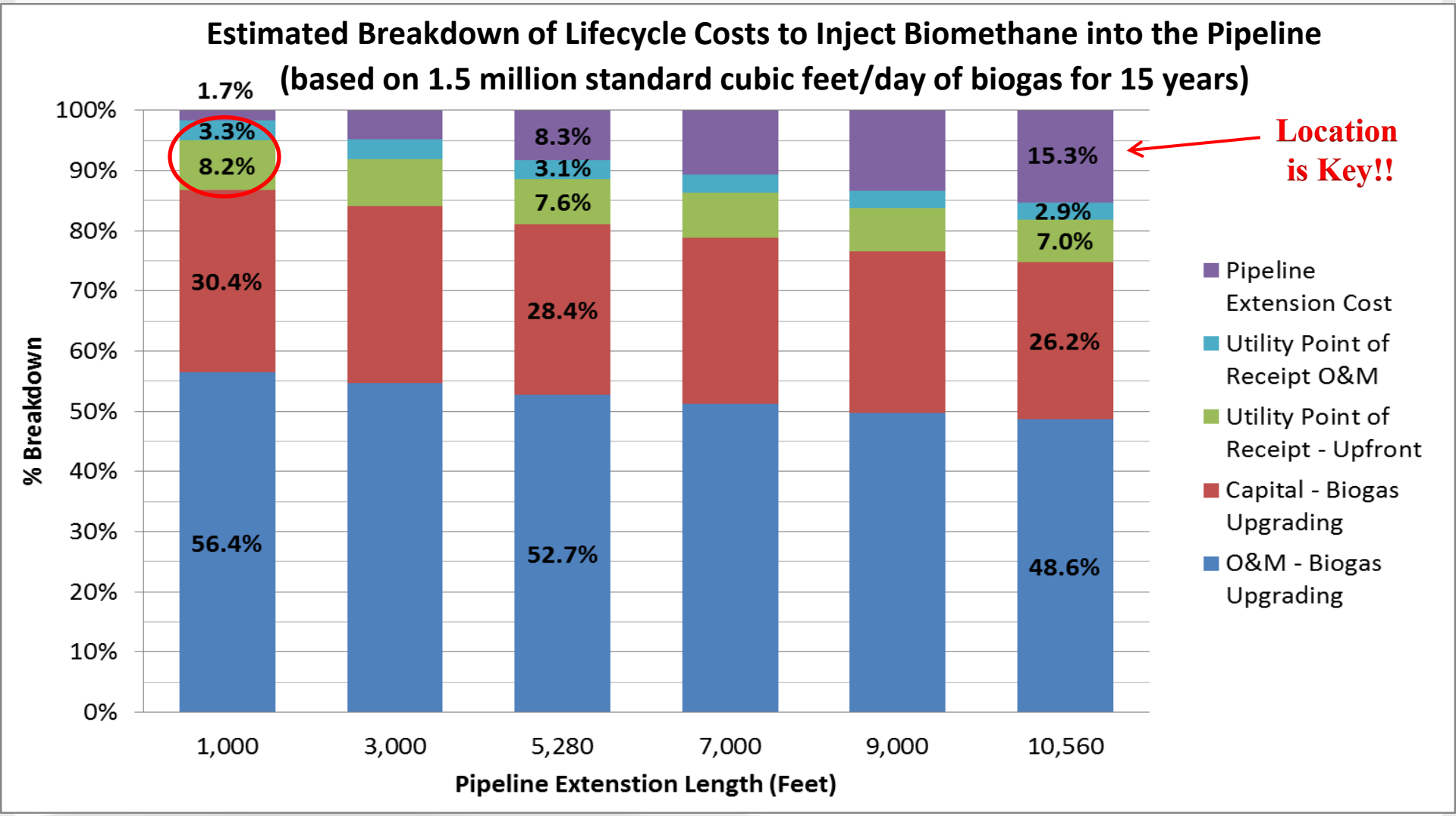
- ITCCA is the Federal and State tax the Utility pays on income received as a CIAC
  - The American Taxpayer Relief Act of 2012 extended the 50% bonus depreciation to tax year 2013, which kept the ITCCA rate at 22% for 2013
  - Effective January 1, 2014, the additional depreciation allowance is no longer allowed and new ITCCA rate will be 35%*

So What Does This Mean in Terms of Interconnection Costs?

- Illustration: Estimated cost of $2.0 million for total interconnection cost (point of receipt, pipeline extension, new btu district – if required, etc)
  - An incremental **$440K** is required from the interconnector to cover SoCalGas' federal and state tax obligation in 2013……..**$700K** in 2014

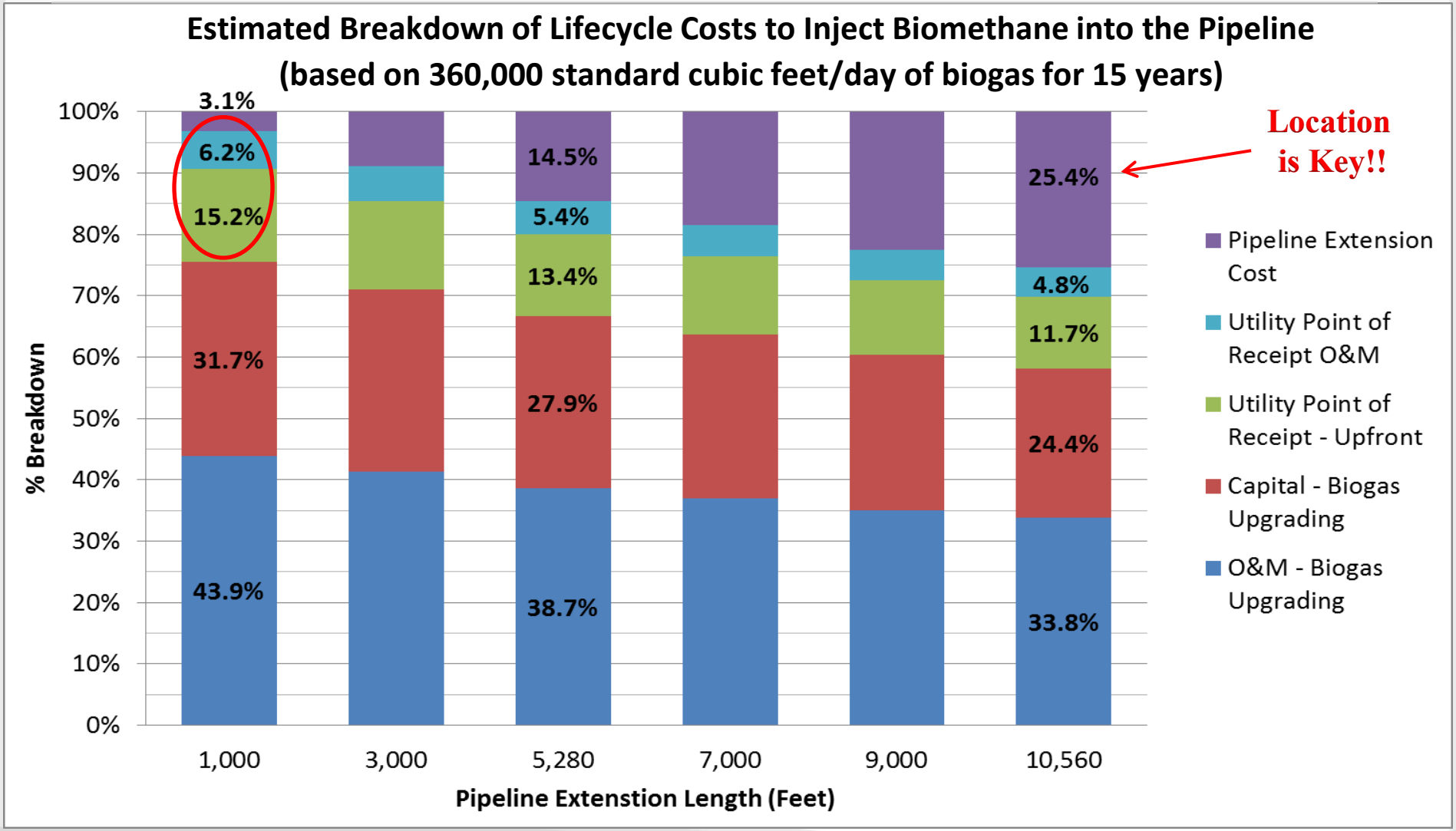
* SoCalGas Advice Letter 4446-G, filed February 6, 2013

Breakdown of Costs to Inject Biomethane into the Pipeline



Pipeline Extension costs are based on installing pipeline in urban location

Breakdown of Costs to Inject Biomethane into the Pipeline



Pipeline Extension costs are based on installing pipeline in urban location

Challenges to Produce Biomethane

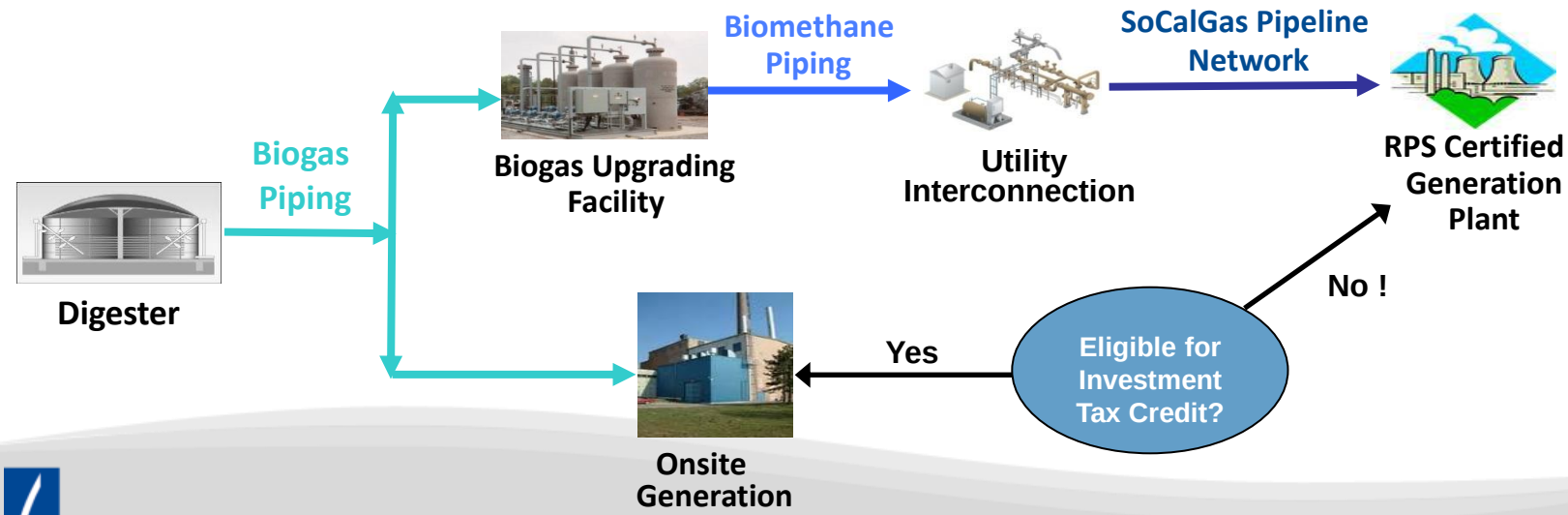
1) **Policy Challenges**
   a) Past
      - March 28, 2012 to April 30, 2013 – suspension of biomethane as RPS-eligible
      - No incentives (Investment Tax Credits, Production Tax Credits, etc)
   b) Current
      - September 27, 2012 – Signing of AB 1900 by the governor which will result in the CPUC adopting new pipeline quality gas specifications on or before December 31, 2013
        - Difficult to design a biogas upgrading facility based on an unknown pipeline quality gas specification
      - No incentives (Investment Tax Credits, Production Tax Credits, etc)
   c) Future
      - Low Carbon Fuel Standard (LCFS) - the ability to generate and sell LCFS credits is uncertain as the LCFS is currently under appeal in the Ninth Circuit Court
      - No incentives (Investment Tax Credits, Production Tax Credits, etc)

Challenges to Produce Biomethane

2) Project Scale
   - Small to medium scale biogas production facilities are not economical
   - Minimum threshold is approximately 1.5 million standard cubic feet per day for favorable economics (including interconnection costs)
     - Based on biomethane market price of $9-12/MMBtu

3) Need to have a consistent and predictable biogas supply

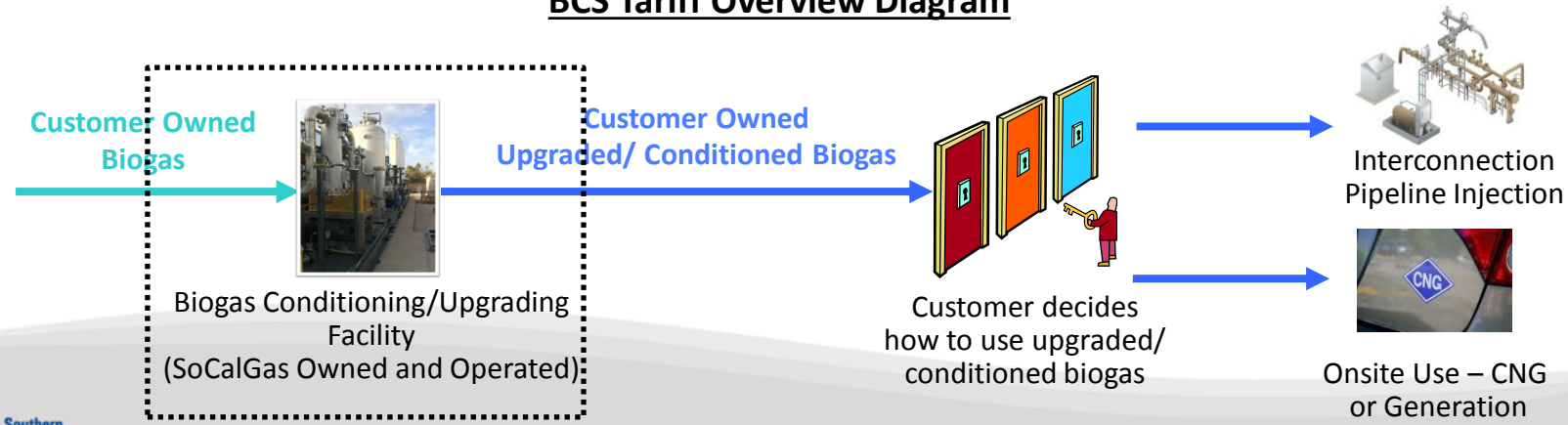
4) Incentives are uneven for biomethane production



SoCalGas Proposed Biogas Conditioning/Upgrading Services (BCS) Tariff

- Application filed on 04/25/12 with the CPUC seeking authority to offer an **optional** tariff service
  - Joint Motion for Settlement (All Party) was filed on 05/03/13 and awaiting CPUC Decision
- SoCalGas to design, install, own, operate & maintain biogas conditioning/upgrading equipment on customer premises
- SoCalGas will not own the biogas entering or the upgraded biogas leaving the biogas conditioning/upgrading facility
- The BCS Tariff rate charged to the customer will be fully compensatory and cost based through a negotiated rate. SoCalGas shareholders bear 100% of the risk
- The optional BCS Tariff will be promoted on a competitively neutral basis with periodic reporting to the Commission
- The BCS Tariff and interconnecting to SoCalGas' pipeline system are two separate and distinct processes

BCS Tariff Overview Diagram



Thank You

Jim Lucas
Market Development Manager - Biofuels
jlucas@semprautilities.com