

**SCGC DATA REQUEST  
SCGC-SCG-DR-08  
SOCALGAS 2012 GRC – A.10-12-006  
SOCALGAS RESPONSE  
DATE RECEIVED: AUGUST 5, 2011  
DATE RESPONDED: AUGUST 19, 2011**

8.1. Please provide a copy of the FERC Form 2 filings for SDG&E for the years 2008, 2009 and 2010.

**SoCalGas Response:**

Please see the enclosed CD for the SDG&E FERC Form 2 filings for the years 2008, 2009 and 2010.

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- 8.2 With respect to SoCalGas' response to SCGC-04, Q.4.10.4:
- 8.2.1 Is the price of \$14.31/MMBtu quoted by Ms. Wright in her testimony at GAW-80 reasonably representative of the cost of gas that would be associated with projects that SoCalGas would expect to pursue under its proposed Sustainable So Cal Program?
  - 8.2.2 Would SoCalGas expect that larger but similar projects pursued under its proposed Biogas Conditioning/Biogas Production Facilities Services would produce gas with a lower cost in \$/MMBtu than \$14.31 MMBtu?
  - 8.2.3 Does SoCalGas believe that there are significant returns to scale to be obtained in pursuing larger biogas projects?

**SoCalGas Response:**

- 8.2.1 SoCalGas believes the total production cost of \$14.31/MMBtu (as stated on page GAW-92) is reasonably representative of a 300 standard cubic foot per minute (scfm) biogas conditioning facility under the Sustainable SoCal Program.
- 8.2.2 Yes, SoCalGas expects that larger but similar biogas conditioning projects would produce biomethane at a cost lower than \$14.31/MMBtu.
- 8.2.3 Yes, similar to other renewable technologies (wind, solar, etc), there are economies of scale that can be achieved at larger scale for biogas conditioning facilities. However, a key goal of the Sustainable SoCal program is to help reduce the cost of smaller scale systems (i.e., systems to process biogas volumes in the range of 200 to 600 scfm)

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8.3 Please provide a table similar to Table GAW-32 that presents the expected lifecycle cost for a biogas project that processes 1,000 scfm and 1,500 scfm, respectively, in raw biogas.

**SoCalGas Response:**

SoCalGas interprets this question in connection to SoCalGas' response to SCGC-04, Q.4.10.4 related to biogas conditioning services. As a clarification, the Sustainable So Cal Program is aimed at promoting the market development of small to mid size biogas projects having raw biogas volumes in the range of 200 – 600 scfm..

In response to question 8.3, the following tables show the lifecycle costs for projects of 1,000 scfm and 1,500 scfm, respectively.

**Lifecycle Costs to Process 1,000 scfm of Raw Biogas**

**PRIMARY ASSUMPTIONS (PER SYSTEM)**

Raw Biogas Processed	1,000 scfm
Capacity Factor	95%
Methane Yield from Cleaning	90%
Annual Biomethane Produced	275,834 MMBtu
Annual Biomethane Production Growth Rate	2.0%
Total Direct Capital *	\$ 5,641,000
Total Annual Direct O&M *	\$ 892,000

**LIFECYCLE COSTS**

	\$/MMbtu
Biogas Production Cost for 1,000 scfm of Raw Biogas *	\$7.14
Cost Avoidance Components	
Levelized Cost of Natural Gas **	NA
GHG Credit **	NA
Net Incremental Cost to Produce Pipeline Quality Gas from Biogas	NA

\* Does not include interconnection related costs as these are the responsibility of the biogas developer

\*\* Not applicable to SoCalGas' proposed biogas conditioning services as these are taken into consideration as part of the developer's project economics

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**SoCalGas Response 8.3 Continue:**

**Lifecycle Costs to Process 1,500 scfm of Raw Biogas**

**PRIMARY ASSUMPTIONS (PER SYSTEM)**

Raw Biogas Processed	1,500 scfm
Capacity Factor	95%
Methane Yield from Cleaning	90%
Annual Biomethane Produced	413,752 MMBtu
Annual Biomethane Production Growth Rate	2.0%
Total Direct Capital *	\$ 6,711,000
Total Annual Direct O&M *	\$ 1,237,000

**LIFECYCLE COSTS**

	\$/MMBtu
Biogas Production Cost for 1,500 scfm of Raw Biogas *	\$6.12
Cost Avoidance Components	
Levelized Cost of Natural Gas **	NA
GHG Credit **	NA
Net Incremental Cost to Produce Pipeline Quality Gas from Biogas	NA

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\*\* Not applicable to SoCalGas' proposed biogas conditioning services as these are taken into consideration as part of the developer's project economics

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8.4 With respect to SoCalGas' response to SCGC-07, Q.7.1.16, which states "only a small percentage of utility employee time will be utilized to offer the services:"

8.4.1 Please state the estimate of utility employee time that would be utilized on a per project basis. Please answer this question specifically by employee category as listed in the responses to SCGC-07, Q.7.1.6 and Q.7.1.8.

**SoCalGas Response**

Detail for the estimated amount of utility employee time that would be utilized for a biogas conditioning services project is included in the attachment below.



Labor\_Hours\_per\_Bi  
ogasProject\_SCGC\_D

SoCalGas has not done a detailed analysis to estimate the percentage of utility time that would be utilized for a biogas production facilities services project. This is resulting from our most likely reliance on 3rd party contractor support in the short term (3-5 years), while we develop additional expertise in-house. Therefore the amount of utility employee time for a biogas production services project will initially be less than the estimated utility employee time for a conditioning services project.

8.4.2 With respect to the time estimate stated in response to the previous question, for each project that SoCalGas would developed, would the employee time expenditure amount to an ongoing commitment or a one-time-only expenditure? Please answer this question specifically by employee category as listed in the responses to SCGC-07, Q.7.1.6 and Q.7.1.8.

**SoCalGas Response:**

Generally, this would be a one time expenditure, as these would be costs related to bringing these projects to fruition. There would be a small amount of ongoing management of 3<sup>rd</sup> party contractors and some utility time to oversee the biogas conditioning equipment.

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**Response to Question 8.4 (Continued)**

- 8.4.3 Would each project require any utility employees to focus their full-time efforts on it for any period of time?

**SoCalGas Response:**

SoCalGas does not plan on having any utility employees working full-time on these projects. All the costs associated with the use of utility employee time would be tracked and allocated to the Biogas NTP&S. Any utility employee time spent on these services and the associated costs would be tracked and allocated to the Biogas NTP&S.

- 8.4.4 If the answer to the previous question is “yes,” please state the titles of the employees in question and the duration of the period for which they would be required to focus their efforts full time. Please answer this question specifically by employee category as listed in the responses to SCGC-07, Q.7.1.6 and Q.7.1.8.

**SoCalGas Response:**

Not applicable as the answer in response to Question 8.4.3 is “no”.

- 8.4.5 How many projects does SoCalGas believe that it could develop without requiring any increase to its utility staff?

**SoCalGas Response:**

SoCalGas does not plan on adding additional utility staff to provide this service as the number of forecasted projects is in the range of two to five.