



Biggs Municipal Utilities 2010 CARB Verification Report CARB ID 3026

Presented to:

Biggs Municipal Utilities
465 C Street
Biggs, California 95917

Presented by:

SCS ENGINEERS
3900 Kilroy Airport Way, Suite 100
Long Beach, CA
(562) 426-9544

November 2011
File No. 01207128.56

Offices Nationwide
www.scsengineers.com

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This Greenhouse Gas Verification Report was prepared in accordance with the California Code of Regulation (CCR) Title 17, Subchapter 10, Article 2, Sections 95100 to 95133. This report developed for the Biggs Municipal Utilities, a non-multijurisdictional retail electricity provider, located in Biggs, California, dated November 2011, was prepared and reviewed by the following:



John Henkelman
Project Professional
Staff Verifier



Cassandra Drotman
Project Professional
Electrical Sector Specialist



Patrick S. Sullivan, R.E.A., C.P.P.
Senior Vice President
Senior Internal Reviewer



Raymond H. Huff, R.E.A.
Vice President
Lead Verifier

Table of Contents

Section	Page
1.0 Introduction.....	1
1.1 Scope of Verification Process.....	1
1.1.1 Criteria.....	1
1.1.2 Scope.....	1
1.2 Standards Used to Verify Power Entity Emissions Detailed Report	2
2.0 Pre-Verification Activities.....	2
2.1 Conflict of Interest Determination	2
2.2 Notification of Verification Activities.....	2
2.3 Verification Plan Development.....	2
3.0 Core Verification Activities.....	3
3.1 Site Visit.....	3
3.1.1 Electricity Transactions and GHG Emissions Inventory Review	3
3.1.2 Data Management System Review.....	4
3.1.3 Review of Other Relevant Information.....	5
3.2 Sampling Plan Development.....	5
3.3 Data Checks.....	6
3.3.1 Data Review.....	6
De Minimis Emissions	6
Measurement Accuracy.....	6
Continuous Emissions Monitoring System.....	6
3.3.2 Generating Facilities	7
3.3.3 Recalculation of Power Entity Emissions Data Report.....	7
4.0 Verification Findings.....	7
4.1 Initial Verification Findings.....	8
4.2 Final Verification Findings	8
4.2.1 Identification of Material/Immaterial Misstatements	8
4.2.2 Conformance Evaluation	8
5.0 Verification Opinion.....	8

List of Tables and Appendices

Table No.	Page
Table 1. 2010 Summary of Electricity Transactions and Emission Sources.....	4
Table 2. 2010 Summary of Reported Transaction and Emissions.....	7

Appendices

A	COI/NOVS Forms and Determination
B	Verification Plan
C	Issues Log
D	Verification Opinion

1.0 INTRODUCTION

Biggs Municipal Utilities (BMU) has retained SCS Engineers (SCS) to perform Greenhouse Gas (GHG) verification activities for their greenhouse gas emissions, as reported to the California Air Resources Board (CARB). This verification report (Report) was produced in accordance with CARB's GHG Reporting Regulation, California Code of Regulation (CCR), Title 17, Subchapter 10, Article 2, Sections 95100 to 95133 (Reporting Regulation). SCS is a CARB-approved verifier, fully qualified to perform GHG verification activities for BMU.

1.1 SCOPE OF VERIFICATION PROCESS

The BMU is one of the members of the Northern California Power Authority (NCPA). NCPA is a joint power agency with 17 members which generates approximately three percent of the California power generation and serves approximately 17,000 customers. NCPA handles the scheduling and dispatching (load estimation scheduling, buying and selling in real time market) for pool members, including BMU. BMU also has a percentage of ownership over multiple power generating facilities in California. BMU is required to report as a multi-jurisdictional retail provider.

1.1.1 Criteria

This verification report was produced in accordance with the following:

- CCR Title 17, Subchapter 10, Article 2, Sections 95100 to 95133,
- *Mandatory Reporting of Greenhouse Gas Emissions: Instructional Guidance for Operators*, CARB, December 2008 (Reporting Guidance),
- *Power Entities Step-by-Step Guidance for GHG Emissions Reporting Using the California ARB On-Line Reporting Tool*, CARB, March 2009
- *Frequently Asked Questions Regarding the Verification of GHG Emissions Data Reports*, CARB, March 2010,
- *Verification of Greenhouse Gas Emissions Data Reports: Technical Guidance for Verifiers*, dated July 2010 (Verification Guidance).

1.1.2 Scope

The scope of this project encompasses the verification of BMU's calendar year 2010 Entity Emissions Detailed Report (PEEDR) of CARB-reported GHG emissions and electricity transactions. The scope of this document covers the verification of the 2010 PEEDR, which includes the following components:

- Number of entities subject to AB32 – 1 (CARB ID 3022)
- Applicable industry sector(s)
 - Non-multijurisdictional retail provider
- Greenhouse gases included in inventory
 - Fugitive emissions associated with sulfur hexafluoride (SF₆) usage with electrical transformers

- Electricity transactions
 - Wholesale Power Sold to California (Specified and Unspecified)
 - Wholesale Power Purchased/Taken From California (Specified and Unspecified)
- Reporting Year – 3rd (2nd year of verification)
- Reporting Time period – Calendar year 2010

1.2 STANDARDS USED TO VERIFY POWER ENTITY EMISSIONS DETAILED REPORT

BMU has stated that their 2010 PEEDR was completed as required by the Reporting Regulation. SCS has used the Reporting Regulation to evaluate the PEEDR, as required by the Reporting Regulation and the Verification Guidance.

2.0 PRE-VERIFICATION ACTIVITIES

2.1 CONFLICT OF INTEREST DETERMINATION

Section 95133 of the Reporting Regulation requires that verifiers first self-assess the potential for a conflict of interest (COI) between the verification team and the reporter. The Reporting Regulation also requires that the verification submit the COI Form to CARB and that CARB make a determination of whether or not a COI exists between the verifier and the participant. The COI process is done in order to ensure an objective review of a participant's PEEDR by the verifier. In accordance with these requirements, on July 13, 2011 *Section A- Conflict Of Interest* of the COI/Notification of Verification Services (NOVS) Form was submitted to CARB.

On August 2, 2011 SCS received a COI determination from CARB. CARB concurred with the determination that there was no pre-existing relationship between SCS and BMU, and that therefore the potential for COI was low. The COI/NOVS Form Section A and CARB approval are included in *Appendix A*.

2.2 NOTIFICATION OF VERIFICATION ACTIVITIES

Section 95133 of the Reporting Regulation requires that verifiers submit a NOVS to CARB before the verification can begin. The NOVS form constitutes Section B of the COI/NOVS Form and can be submitted either in conjunction or separately from the COI Form Section A. SCS submitted *Section B - Notification of Verification Services* of the COI/NOVS form to CARB with the COI on July 13, 2011. This notification includes scheduling and site information to provide CARB with a notification of the planned activities and allow them to observe the verification. After the NOVS has been submitted, SCS must wait at least ten days before beginning verification activities. The COI/NOVS Form Section B is included in *Appendix A*.

2.3 VERIFICATION PLAN DEVELOPMENT

Following COI determination and completion of the NOVS waiting period, SCS began work on the development of a Verification Plan. The Verification Plan provides an overall roadmap for

the verification process, and is considered a living document, subject to revision based on information discovered during the verification process. The Verification Plan lists specific activities that must be conducted during the Verification Plan also identifies an expected timeline for the completion of each activity. Specific requirements of the Verification Plan are listed in Section 95131(b)(1-3) of the Reporting Regulation. A copy of the Verification Plan prepared for BMU is attached in *Appendix B*.

3.0 CORE VERIFICATION ACTIVITIES

Verification activities included: emails and phone calls with BMU staff, a site visit to the NCPA Roseville office, collection and review of emissions data (SCS collected spreadsheet records, reviewed the transaction database, and reviewed the California Independent State Operator [CAISO] data), and verification of records with calculations and Reporting Tool entries.

3.1 SITE VISIT

The Reporting Regulation requires an annual site visit for all retail providers and marketers under Section 95103(c)(1). This is the second year of verification for BMU under the Reporting Regulation, and the BMU 2010 GHG inventory is the second year verified by SCS; therefore, the entity is subject to a “less intensive” verification that does not require a site visit; however, a site visit was conducted at the NCPA Roseville headquarters to review BMU transaction records in the NCPA database. The site visit was conducted on September 8, 2011 by John Henkelman of SCS.

Section 95131(b)(4) of the Reporting Regulation requires the following activities during the site visit:

- Check that electricity transactions and emission sources have been identified and reported properly.
- Review and understand data management systems used in electricity transaction and GHG emission reporting, including evaluation of the uncertainty and effectiveness of the data management system,
- Collect and review information needed in the verification process.

3.1.1 Electricity Transactions and GHG Emissions Inventory Review

As a component of the site visit, SCS performed a review of BMU electrical transactions and fugitive emission calculations for the entity and process review in order to ensure that all applicable electrical transactions and fugitive emission sources were included in the GHG inventory and identify any potential double-counting of transactions or emissions, or inclusion of incorrect transactions or fugitive emission sources (those not required by the Reporting Regulation).

During the September site visit was conducted at NCPA Headquarters, which is the central data management center for BMU data. The site visit included an overview of BMU’s data management system. SCS can confirm that the electricity transactions and GHG emissions sources for the BMU entity match what was reported in their 2010 PEEDR. This is in accordance with the Reporting Regulation. *Table 1* shows a summary of the electrical transactions and emission sources.

Table 1. 2010 Summary of Electricity Transactions and Emission Sources

Sources	Transaction/Emissions Category
Wholesale Power Sold to CA	-NCPA – Market Sales (Unspecified)
Wholesale Power Purchased/Taken From CA	-NCPA Geothermal Plant Number 2 (Specified) -NCPA Western Area Power Administration (WAPA) Central Valley Project (Specified) -NCPA - Market Purchases (Unspecified) -NCPA - Term Contracts (Unspecified)
Fugitive emissions of SF ₆ from electrical equipment	-Fugitive SF ₆

BMU meets the reporting requirements for non-multi-jurisdictional retail providers; as such, the entity’s power transactions must also be reported.

3.1.2 Data Management System Review

In accordance with §95131(b)(4)(B), during the site visit SCS conducted a review of NCPA/BMU’s data management systems. BMU maintains a documented GHG Inventory Plan, which was available for review before and during the site visit. Mr. Pete Carr with BMU, and various NCPA staff are responsible for overall inventory process processes.

As a NCPA pool member, BMU’s electrical transactions are scheduled by three NCPA departments. NCPA’s pre-market department buys and sells electricity transactions based on what is expected to be generated, the actual transaction data are submitted to the CAISO, and the dispatchers department reports real time transactions. Electrical purchases and sales are also recorded by BMU and NCPA. NCPA’s data management system, has internal checks; as well each electrical transaction is reviewed by each individual counter party before completed.

During the site visit, SCS reviewed the data management system, checked records, and interviewed with key personnel (both NCPA and BMU) responsible for generating, coordinating, and assembling the data required for the emissions detailed report. SCS was shown how the data in the BMU Microsoft Excel spreadsheet was generated in NCPA’s data management system and how it was cross checked with the original data on the Open Access Technology, Inc. (OATI) data management system interface. SCS observed several queries into the various BMU data management systems to confirm their accuracy.

BMU tracks the amount of SF₆ used in its electrical transmission equipment, in accordance with the Reporting Regulation.

Based on discussions and interviews with knowledgeable BMU and NCPA staff, although BMU's data management system is not formally documented, SCS finds that BMU has a data management system that meets the regulatory requirements.¹ All tasks required for reporting are being conducted by the proper individuals; however, this performance is not being fully documented. However, it would be easier for the verification team to evaluate the BMU PEEDR if the BMU management system had better controls and was more transparent, formalized, and better linked to corroborating third-party documentation.

3.1.3 Review of Other Relevant Information

During the site visit, SCS reviewed relevant information, including interviews with site personnel, utility invoices, logbooks, and data collected into spreadsheets. SF₆ use information was obtained from maintenance records. These data sources were checked in order to ensure that reported electricity transactions matched third-party records.

3.2 SAMPLING PLAN DEVELOPMENT

Using data obtained from the site visit and pre-verification data review, SCS developed a Sampling Plan which targets the electricity transactions and emission sources with the highest risk of error based on the reported transaction and emissions and analysis of the data management system. As required by §95131(b)(8) of the Reporting Regulation, the Sampling Plan ranked emission sources by both total emissions and calculation uncertainty, and a qualitative narrative describing uncertainty was created.

SCS focused its review on BMU's electrical transaction management system and SF₆ records. The Sampling Plan developed for the BMU PEEDR considered the following areas of reporting risk:

- Data acquisition equipment,
- Data sampling and frequency,
- Data processing and tracking,
- Electricity transaction and emission calculations,
- Data reporting, and
- Management policies/practices in developing the PEEDR.

¹ The 2010 CARB Verification Guidance states, "A weak or poorly documented inventory program or internal audit procedure would not directly result in a non-conformance; however weaknesses in these systems create a higher risk of non-conformance or material misstatement in the emissions data report."

In accordance with §95131(b)(8)(E), SCS will keep a copy of the developed Sampling Plan on-file for a period of at least 5 years following submission of a verification opinion on BMU's 2010 PEEDR.

3.3 DATA CHECKS

In accordance with §95131(b)(9), SCS performed detailed data checks on a subset of the PEEDR-reported data based on areas of highest contribution of electrical transactions and emissions, or risk of uncertainty, as identified in the Sampling Plan. Data check activities consisted of corroboration of data used in calculations with third-party data (where available), and re-calculation of selected transaction and emissions calculations (based on significant risk sources identified in the Sampling Plan).

3.3.1 Data Review

Data used by BMU in reporting came from their internal data management system which was cross checked with settlement data, contracts/agreements, power transaction database, SF₆ records, and summary spreadsheets.

To verify the electricity transactions, SCS reviewed the transaction database, internal Excel summary spreadsheets, and California ISO records for electricity transactions. To check the reported GHG emissions, SCS reviewed the SF₆ logs and interviewed BMU personnel.

Missing Data

Although §95103(a)(8)(B) allows for missing data to be incorporated into EDRs, BMU did not have any missing data in their 2010 PEEDR.

De Minimis Emissions

De minimis provisions are not allowed for electricity transactions, the reporting of all electricity transaction information is required as prescribed in Part 95111(b). BMU did not report any de minimis emissions.

Measurement Accuracy

Electrical transactions data are taken from the busbar (the power conduit at a generating facility that serves as the starting point for transmission), confirmed by all counter parties which handle the transmission of electricity, the final counter party, and other independent agencies, and are assumed to meet the accuracy requirements of the Reporting Regulation.

Continuous Emissions Monitoring System

No Continuous Emission Monitoring System (CEMS) data was used in reporting GHG emissions.

3.3.2 Generating Facilities

CARB issued guidance for verifiers to confirm that power entity reports under Part 95111 of the Reporting Regulation report all electricity transactions, as well as any/all generation facility emissions under Part 95111(a). Since BMU is reporting as a non-multijurisdictional retail provider under Part 95111(b), they had to demonstrate that they are not required to report under any other requirements of the Reporting Regulation. SCS conducted interviews with BMU staff, reviewed power purchasing/allocation contracts/agreements, and reviewed power generating devices BMU owns. During SCS' review, it was determined that BMU did not control any reportable generation facilities.

SCS confirmed that BMU does not own any generating facilities which would fall under Part 95111(a).

3.3.3 Recalculation of Power Entity Emissions Data Report

SCS also recalculated a portion of the reported emissions as a data check. Table 2 shows the unit checked, the value reported by BMU, a comparison of the BMU and SCS values, and the source of the data used by SCS.

Table 2. 2010 Summary of Reported Data

Source	Data Reviewed	Value Reported by BMU	Identified Discrepancy (MTCO _{2e})	Material Misstatement Assessment (<5%?)	Comments
SF ₆ Emissions (MTCO _{2e})	SF ₆ Use Logs	0	0	NO (<0.1%)	BMU has SF ₆ containing equipment and is required to report 0 in the PEEDR if there are no associated SF ₆ emissions.
Power Purchased/Taken from California (Specified source)(MWh)	NCPA – WAPA Central Valley Project	6,875	0	NO (<0.0%)	No discrepancy noted
Wholesale Power Sold to California	NCPA – Market Sales	16,680	0	NO (<0.1%)	No discrepancy noted

4.0 VERIFICATION FINDINGS

During the verification process, SCS maintained an issues log, which was used to track issues that arose during the verification process. Initial findings were given to BMU based on the

issues that arose. The resolution of these issues was tracked in the issues log. When all issues were resolved, SCS was able to issue final verification findings.

4.1 INITIAL VERIFICATION FINDINGS

The initial findings log was given to BMU on November 11, 2011. BMU personnel responded to the issues identified in the log on November 23, 2011. A log of these issues can be found in *Appendix C*.

All issues that would result in a material misstatement or non-conformity from the initial findings log were resolved by November 23, 2011.

4.2 FINAL VERIFICATION FINDINGS

4.2.1 Identification of Material/Immaterial Misstatements

A misstatement is an inaccuracy in reporting. A material misstatement is an inaccuracy in reporting that results in the reported emissions or electrical transactions being outside the 95 percent accuracy requirement of the regulation.

No misstatements were identified during the final verification review.

4.2.2 Conformance Evaluation

The Site's conformance with the Reporting Regulation was also evaluated. A non-conformance is a failure to meet the use the required methods or emission factors specified in the Reporting Regulation or a failure to meet the requirements of the regulation. The conformance evaluation does not include administrative requirements that do not directly impact the reporting of GHG emissions, such as maintenance of a GHG Management Program or the documentation retention required by the Reporting Regulation.

No non-conformances were noted during the verification.

5.0 VERIFICATION OPINION

Based on the verification activities conducted by SCS, it has been determined that BMU's California GHG PEEDR for the 2010 calendar reporting year is free of material misstatement, is in conformance with the Reporting Regulation, and verified without qualification. Please see *Appendix D* for completed Verification Opinion.

APPENDIX A
COI/NOVS Form and Determination

California Air Resources Board
SECTION A- CONFLICT OF INTEREST/SECTION B- NOTICE OF VERIFICATION SERVICES

See instructions at the end of Section B

For Official Use Only		
Date Received:	Date(s) Additional Information Requested:	
Date Completed:	Date Approved:	Tentative Verification Start Date:
SECTION A. CONFLICT OF INTEREST		
PART I. VERIFICATION BODY INFORMATION:		
VERIFICATION BODY NAME: SCS Engineers	ARB-Assigned ID number H-09-011	
PART II. FACILITY OR ENTITY INFORMATION:		
FACILITY OR ENTITY NAME : Biggs Municipal Utility	ARB-Assigned ID number: 3026	
CONTACT NAME AND TITLE: Scott Tomashefsky	CONTACT E-MAIL ADDRESS: Scott.tomashefsky@ncpa.com	
CONTACT TELEPHONE NUMBER: 916-781-4291	IDENTIFY IF THE OPERATOR IS REPORTING AS: <input type="checkbox"/> Cement Plant <input checked="" type="checkbox"/> Power Retailer or Marketer <input type="checkbox"/> Petroleum Refinery or Hydrogen Plant	
Part III. CONFLICT OF INTEREST SELF-EVALUATION:		
Based on my assessment I believe my verification body's risk for a Conflict of Interest is:		
<input type="checkbox"/> HIGH <input type="checkbox"/> MEDIUM <input checked="" type="checkbox"/> LOW		
Part IV. ATTACHMENTS:		
1. Organizational Chart and Business Description: Please attach an organizational chart of your verification body and any entities related to your verification body. Also provide a brief description of the primary nature of work for your verification body and any entities related to your verification body. Note: only need to submit once per year unless changes occur.		
2. Conflict of Interest Mitigation Plan: (if applicable) If the potential conflict of interest risk is medium; please attach a mitigation plan. The mitigation plan at a minimum should include: <ol style="list-style-type: none"> a. A demonstration that any individuals (in the verification body, on the verification team, or subcontractors) with potential conflicts have been removed or insulated from the project. b. An explanation of any changes to the verification body or verification team to the remove the potential conflict of interest. Include organizational structure changes. For example, demonstration that a unit with potential conflicts has been divested or moved into insulated related entity. c. Any other circumstance that specifically addresses other sources for potential conflict of interest. 		
Part V. VERIFICATION TEAM:		
1. How many people will be placed on the verification team, including the independent reviewer? 4		
2. Provide the following information for each member of the verification team, including the independent reviewer:		
LEAD VERIFIER Name: Raymond Huff		
Sector Accreditation: <input checked="" type="checkbox"/> Cement plant specialist <input checked="" type="checkbox"/> Refinery specialist <input type="checkbox"/> Electricity transactions specialist		
List any personal or family relationships with management or employees of the operator: Not Applicable		
INDEPENDENT REVIEWER Name: Patrick Sullivan		
Sector Accreditation: <input checked="" type="checkbox"/> Cement plant specialist <input type="checkbox"/> Refinery specialist <input type="checkbox"/> Electricity transactions specialist		
List any personal or family relationships with management or employees of the operator: Not Applicable		

California Air Resources Board
SECTION A- CONFLICT OF INTEREST/SECTION B- NOTICE OF VERIFICATION SERVICES

OTHER Name: Cassandra Drotman **Employer:** **Verification Body Staff** or **Subcontractor**

ARB-Accredited: **Yes** **Sector Accreditation:** **Cement plant specialist** **Refinery specialist** **Electricity transactions**

Describe roles and responsibilities during this verification services: Assist in verification process; evaluate and verify emissions calculations, site visit(s), and preparation of verification report, verification opinion, and checklist of verification activities.

List any personal or family relationships with management or employees of the operator: Not Applicable

OTHER Name: John Henkelman **Employer:** **Verification Body Staff** or **Subcontractor**

ARB-Accredited: **Yes** **Sector Accreditation:** **Cement plant specialist** **Refinery specialist** **Electricity transactions**

Describe roles and responsibilities during this verification services: Assist in verification process; evaluate and verify emissions calculations, site visit(s), and preparation of verification report, verification opinion, and checklist of verification activities.

List any personal or family relationships with management or employees of the operator: Not Applicable

OTHER Name: **Employer:** **Verification Body Staff** or **Subcontractor**

ARB-Accredited: **Yes** **Sector Accreditation:** **Cement plant specialist** **Refinery specialist** **Electricity transactions**

Describe roles and responsibilities during this verification services:

List any personal or family relationships with management or employees of the operator:

Part VI. RELATIONSHIP OF VERIFICATION BODY TO THE OPERATOR:

- Has your verification body and operator shared any management staff or board of directors membership, or has any of the management staff of the operator been employed by your verification body, or vice versa, within the last three years?
 Yes **No**
- If yes, provide the following information for each person and instance.

Name:

Verification Body Position Title:	Operator Position Title:
Dates of Overlap (month/year)	From: To:

List any personal or family relationships between the operator and any members of the verification team:

Part VII. VERIFICATION SERVICES:

- Has a member of the verification team or the verification body, including subcontractors, provided other verification services for the operator within the last three years?
 Yes **No**
- If yes, please provide the following information for each person and instance (attach a description on a separate sheet if needed).

Name(s)	Describe Services Provided	Report Year(s) Emissions Verified	Dates of Service (mo/y to mo/y)
Ray Huff, Patrick Sullivan, Cassandra Drotman, John Henkelman	2009 AB32 GHG Verification Services	2009	6/10 to 12/10

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Part VIII. NON-VERIFICATION SERVICES:

1. Has a member of the verification team, verification body, or a related entity provided any of the following non-verification services either within or outside California for the operator within the last three years?

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Designing, developing, implementing, or maintaining an inventory or information or data management system for facility greenhouse gases, or, where applicable, electricity transactions;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Developing greenhouse gas emission factors or other greenhouse gas-related engineering analysis;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Designing energy efficiency, renewable power, or other projects which explicitly identify greenhouse gas reductions as a benefit;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Preparing or producing greenhouse gas-related manuals, handbooks, or procedures specifically for the reporting facility;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Appraisal services of carbon or greenhouse gas liabilities or assets;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Brokering in, advising on, or assisting in any way in carbon or greenhouse gas-related markets;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Managing any health, environment or safety functions;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Bookkeeping or other services related to the accounting records or financial statements;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Any service related to information systems, unless those systems will not be part of the verification process;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Appraisal and valuation services, both tangible and intangible;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Fairness opinions and contribution-in-kind reports in which the verification body has provided its opinion on the adequacy of consideration in a transaction, unless the resulting services shall not be part of the verification process;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Any actuarially oriented advisory service involving the determination of amounts recorded in financial statements and related accounts;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Any internal audit service that has been outsourced by the operator that relates to the operator's internal accounting controls, financial systems or financial statements, unless the result of those services shall not be part of the verification process;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Acting as a broker-dealer (registered or unregistered), promoter or underwriter on behalf of the operator;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Any legal services;
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Expert services to the operator or its legal representative for the purpose of advocating the operator's interests in litigation or in a regulatory or administrative proceeding or investigation, unless providing factual testimony.

If you answered yes to any of the questions above in Part VIII (1), your potential for a conflict of interest is deemed to be high.

2. Has a member of the verification team, the verification body, or a related entity in the past, present, or future provided or intends to provide the operator a non-verification service not listed above either within or outside California? Past services only include services provided within the last three years. Please include work by subcontractors on the verification team.

Yes No

3. If yes, please provide the following information for each person and instance (attach extra sheets if needed).

Date of Service (mo/yr to mo/yr)	Name of person providing service	Service related to GHG emissions or electricity transactions	Type and Description of Service	Location of Service	ONLY FOR PAST SERVICES List past service fee as a percent of the estimated current proposed verification fee
		<input type="checkbox"/> Yes <input type="checkbox"/> No			
		<input type="checkbox"/> Yes <input type="checkbox"/> No			
		<input type="checkbox"/> Yes <input type="checkbox"/> No			

California Air Resources Board
SECTION A- CONFLICT OF INTEREST/SECTION B- NOTICE OF VERIFICATION SERVICES

		<input type="checkbox"/> Yes <input type="checkbox"/> No			
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4. General non-verification services:
 Identify the financial magnitude of the total non-verification services performed by the verification body for the operator in the last three years.

The information may be provided in one of two formats:

a. The sum of revenues (in dollars) for non-verification services provided by members of the verification team.
 Not Applicable

or

b. As a percentage of the verification body's gross income for the last three years.
 Not Applicable

Optional for Low COI: Calculate the sum of revenues for all non-verification services provided within the last three years as a percentage of the proposed fee for proposed verification services.
 Not Applicable

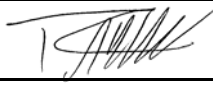
5. Please provide an explanation of how the amount and nature of non-verification service previously performed is such that a member of the verification team's credibility and lack of bias should not be questioned. Attach additional sheet(s). Not Applicable

PART IX. OTHER CONFLICT OF INTEREST CIRCUMSTANCES:


Identify any other circumstances known to your verification body that could result in a conflict of interest.
 None

Part X. VERIFICATION BODY SIGNATURE (Required for all submittals of Section A):

In signing this form, I certify under penalty of perjury of the laws of California that the information contained in this form, PTSD/GHG_03 Section A is true, accurate and complete. I further certify that I am duly authorized to represent and legally bind the verification body on all matters related to this form.

SIGNATURE: 	PRINTED NAME: RAY HUFF
TITLE: VICE PRESIDENT	DATE: JULY 13, 2011

California Air Resources Board
SECTION A- CONFLICT OF INTEREST/SECTION B- NOTICE OF VERIFICATION SERVICES

PART IV. VERIFICATION SERVICE DATES AND LOCATIONS: Required for all submittals			
VERIFICATION SERVICES START DATE: 9/1/2011		EXPECTED COMPLETION DATE: 12/1/2011	
Visit date(s): 9/16/2011	Facility contact name: Scott Tomashefsky	Facility contact phone: 916-781-4291	SITE VISIT: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROVIDE A BRIEF DESCRIPTION OF THE VERIFICATION SERVICES TO BE PERFORMED: SCS will provide verification services for the 2010 greenhouse gas inventory submitted by the Biggs Municipal Utility. SCS will develop a verification plan, conduct a site visit, develop a sampling plan, perform data checks, develop initial findings, possible re-review findings after the reported emissions have been modified based on initial findings, and prepare a verification report and verification opinion.			
ARE THERE OTHER FACILITIES OR OFFICE LOCATIONS THAT SHOULD BE VISITED IN ORDER TO COMPLETE THE VERIFICATION OF THIS FACILITY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, please provide facility information below:			
Facility or location name:		Facility or location address:	
Visit date(s):	Facility contact name:	Facility contact phone:	SITE VISIT: <input type="checkbox"/> YES <input type="checkbox"/> NO
PROVIDE A BRIEF DESCRIPTION OF THE VERIFICATION SERVICES TO BE PERFORMED:			
Part V VERIFICATION BODY SIGNATURE (Required for all submittals of Section B):			
In signing this form, I certify under penalty of perjury of the laws of California that the information contained in this form, PTSD/GHG_03 Section B is true, accurate and complete. I further certify that I am duly authorized to represent and legally bind the verification body on all matters related to this form.			
SIGNATURE: 		PRINTED NAME: RAY HUFF	
TITLE: VICE PRESIDENT		DATE: 7/13/2011	

Brief Instructions for PTSD/GHG 03, Section A and Section B

- Verification Bodies *must complete* form PTSD/GHG 03, Section A and Section B *prior* to beginning verification services.
- You may submit Section A and B jointly or sequentially.
- Please respond fully and in detail to all of the questions.
- If you have no prior relationship to the operator you may answer "no" or "does not apply" but **you must answer every question.**
- Attach extra sheets and expand sections if necessary.

Use of Subcontractors:

If you are using subcontractors to complete this verification service, you must also provide information for all subcontractors. For the purposes of this form a related entity means the parent company and all companies that share the common parent company.

How to Submit Form

Joint Submittal of Section A and Section B

When Section A and Section B are submitted together, ARB staff will expedite the review. *If ARB cannot complete the review to accommodate your proposed date to commence services the date will need to be adjusted.* The verification body (VB) will be notified of the conflict of interest determination. If the potential conflict of interest is deemed acceptable, the verification body may proceed with verification services.

Only Part IV and Part V of Section B need to be completed when submitting jointly.



California Environmental Protection Agency
California Air Resources Board

**Determination of Conflict of Interest for Verification Services
for 2010 Greenhouse Gas Emissions Data**

Verification Body	SCS Engineers
Reporter	Biggs Municipal Utilities [3026]
Status	Conflict of Interest / Notice of Verification Services Approved

Your Conflict of Interest Form indicates your assessment of the potential for conflict of interest is **low**. Based on the information provided on the form, Air Resources Board (ARB) staff finds the potential for conflict of interest meets the regulatory requirements for low conflict of interest, and verification services may proceed. Approval granted herein does not operate to alter or amend any existing regulatory requirements.

Your Notice of Verification Services (NOVS) form has also been reviewed, and you have been approved to provide verification services beginning on the date below. Approval granted herein does not operate to alter or amend any existing regulatory requirements. Please notify ARB staff if there are any changes to the date of your proposed site visit(s).

ARB staff may choose to observe the verification for this reporter as part of our oversight of ARB's verification program. The verification body and reporter will be notified if ARB staff will be observing the verification.

Please send questions to ghgverify@arb.ca.gov, or contact Mr. John Swanson at 916-323-3076 if you have any questions.

Approved 8/2/2011.

A handwritten signature in blue ink that reads "James N. Goldstene".

James N. Goldstene
Executive Officer

APPENDIX B
Verification Plan

SCS ENGINEERS

September 7, 2011
File No. 01207128.56

Mr. Scott Tomashefsky
Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

SUBJECT: Verification Plan for 2010 Biggs Municipal Utilities, Greenhouse Gas Emissions Reporting Under the California Air Resource Board

Dear Mr. Tomashefsky:

This letter serves as SCS Engineers' (SCS') Verification Plan to perform Greenhouse Gas (GHG) verification activities for Biggs Municipal Utilities (BMU) (California Air Resources Board [CARB] ID 3022), located in Biggs, California (Site). The entity is required to report its GHG emissions under the State of California's "Mandatory Reporting Requirements for GHG Emissions," under the Global Warming Solution Act, Assembly Bill 32 (AB 32), and has contracted with SCS, a California Air Resource Board (CARB)-approved verifier, for the verification of your 2010 emissions.

OBJECTIVE

The objective of this project is to establish Sites' conformance with applicable regulations and verification criteria, as outlined below. The intended result is project is for SCS to verify that the Sites' emissions have been reported in compliance with the California Code of Regulations (CCR), Title 17 Section 95100 to 95133, *Regulation for the Mandatory Reporting of Greenhouse Gas Emissions* (Reporting Regulation).

CRITERIA

The following specific methodologies were used to quantify and report GHG Emissions, electricity transactions, and other required data:

- The Reporting Regulation,
- CARB *Mandatory Reporting of Greenhouse Gas Emissions: Instructional Guidance for Operator*, dated December 2009,
- CARB *Instructional Guidance for Mandatory GHG Emissions Reporting: Electricity Generating Facilities, Retail Providers, and Marketers*, dated December 2008,



- *Power Entities Step-by-Step Guidance for GHG Emissions Reporting Using the California ARB On-Line Reporting Tool*, CARB, March 2009.

MATERIALITY AND REGULATORY CONFORMANCE

As a reporter to CARB, BMU is seeking a level of assurance in the verification process that is consistent with the requirements of CARB under the Reporting Regulation. In order to receive a positive verification opinion, a reporter's emissions data report (EDR) must be:

1. Materially¹ correct and a fair representation of the GHG data and information, and
2. Prepared in accordance with the Regulation.

In accordance with these requirements, a materiality threshold of 5% will be applied to this verification project. SCS will determine if the emissions checked sources are within 95 percent of actual total emission for the facility, on a CO₂ equivalent.

In addition, SCS will evaluate the conformance of the Sites' EDR with the Reporting Regulation. As such, any non-conformance that is not corrected before the verification deadline will result in an adverse opinion. Note that while some observed non-conformances can be corrected (incorrect calculation method, omitted emission sources, etc.), some non-conformances cannot be corrected (e.g. inaccurate monitoring or meters, etc.).

SCOPE AND UNDERSTANDING

The scope of this project encompasses the verification of BMU's calendar year 2010 CARB-reported GHG emissions, which include the following components:

- Number of entities subject to AB32 – 1
 - Biggs Municipal Utilities (ARB ID 3022)
- Applicable industry sector(s)
 - Non-Multijurisdictional Retail Provider
- Greenhouse gases included in electricity retailer facility inventory
 - Fugitive emissions associated with sulfur hexafluoride (SF₆) usage with electrical transformers
- Reporting Year – 3rd (2nd year of verification)
- Verification Frequency – Annual, starting in 2009
- Electricity Transactions
 - Wholesale Power Sold to California (Specified and Unspecified)
 - Wholesale Power Purchased/Taken From California (Specified and Unspecified)
- Time period
 - Calendar year 2010

¹ Under the Regulation, materiality is defined as a discrepancy of overall reported emissions (both direct and indirect) that differs from the verifier's estimated emissions by more than 5%.

VERIFICATION ACTIVITIES

The verification activities to be performed for this project are customized to address the Site's specific emissions sources and management system. The following steps outline the verification activities to be conducted.

Pre-Verification Activities

Conflict of Interest Assessment

Once SCS has been selected to provide verification services, we will first complete a conflict of interest (COI) assessment in order to identify and disclose any work previously performed by SCS for BMU, including assessment of any previous professional relationships between members of the SCS verification team and BMU. Although SCS has already performed an internal assessment of potential COI, CARB must perform their own analysis based on SCS's self-assessment provided under Task 1.

The successful result of this task will be a formal determination from the CARB Executive Officer that the potential for COI has been deemed acceptable and that verification services may proceed. Note however, that CARB has specified a period of up to 45 days to make this determination.

Notification of Verification Services

Once SCS has received a determination from CARB that the potential for COI is acceptable and that verification services may proceed, SCS will complete and submit a Notice of Verification Services (NOVS).

The NOVS will contain the following:

- A list of SCS designated staff for the verification project;
- Documentation of SCS's accreditation body status with CARB as well as individual accreditations for the team members, specific to the required reporting sector;
- General information on both the Lead Verifier and Operator, including a listing of facilities subject to verification activities, expected dates of on-site visits, and a brief description of verification services to be performed, including estimated completion date.

Note that once the NOVS has been submitted and received by CARB, verification activities cannot begin for 10 working days (earlier, if pre-approved in writing).

Core Verification Services

Following the 10 working day period after receipt of the NOVS by CARB, SCS will begin verification services, which will follow the steps listed below.

Step 1 – Development of a Verification Plan

SCS will begin the verification process through the completion of pre-verification preparation. In this step, we will compile background information on the company and its operations and complete research on the types of sources and GHG emissions we expect to see. This is done through independent research as well as interaction with company officials through a kick-off meeting. This is done prior to completing any actual review of the GHG emission report filed with CARB, and allows us to get “up-to-speed” on the facility we are verifying. Under this step, we will also scope and plan the subsequent steps to the verification process.

Based on the initial understanding of the client’s operations and emissions, SCS will develop a verification plan that includes the dates of proposed meetings and interviews, dates of proposed site visit(s), types of proposed document/data review, and the expected date for completion of verification activities.

Step 2 - Site Visit

SCS verification staff will conduct one site visit to the Site. The purpose of the site visit will be to check that all applicable requirements specified in AB32 have been identified through a review of facility operations and the facility’s GHG emissions inventory. During the site visit, SCS will review the data management systems used to track, quantify, and reported to the CARB, including an evaluation of the uncertainty and effectiveness of these systems. Note that SCS may also request/review additional data that is deemed necessary for the verification process, based on results of the site visit.

Step 3 - Development of Sampling Plan

As part of the verification process, SCS will complete a Sampling Plan using the information obtained during the review process outlined in Steps 1 and 2. The Sampling Plan will be based on strategic analysis developed from document reviews and interviews, and will assess the likely nature, scale and complexity of the verification project. The analysis will review the inputs for the development of the submitted emissions data report, the GHG management system.

The sampling plan will include a ranking of emissions sources by amount of total CO₂e as well as by the largest calculation uncertainty. The sampling plan will include a qualitative narrative of the uncertainty risk assessment for the following six areas:

1. Data acquisition equipment;
2. Data sampling and frequency;
3. Data processing and tracking;
4. Emission calculations;
5. Data reporting;
6. Management policies or practices in developing emissions data reports.

The Sampling Plan is subject to modification as relevant information becomes available during the verification process. In addition, note that the Sampling Plan is considered an internal verification process document, which must be made available to CARB upon request.

Step 4 – Data Checks

Using the sampling plan developed in Step 3, SCS will perform selected data checks for the most significant and uncertain emission estimates in order to ensure that the appropriate methodologies, calculations and emission factors have been applied for the emission sources. The number of data checks to be conducted will be based on SCS's assessment of the amount of data checks necessary to provide reasonable assurance whether the reported emissions are free of material misstatement.

Verification Findings

Statement of Initial Findings

Following completion of Step 4, SCS will create a statement of initial findings, which will provide SCS's determination of whether there is reasonable assurance that the reported facility emissions are within 95% of the actual total emissions for the facility, as calculated independently by SCS. The statement will be presented in the form of a log of issues identified in the course of verification activities impacts the determination of material misstatement and nonconformance.

Emissions Data Report Modification (if necessary)

In the event that the statement of initial findings identified material (greater than 5%) misstatements and or nonconformance's which would constitute a findings with less than reasonable assurance, prior to completion of the verification opinion, the client will have the option to correct or improve their submitted emissions report and re-submit the revised report to CARB. Note that the operator must maintain documentation to support any revisions made to the initial emissions data report for a period of five years (see §95105).

Emissions Data Report Re-Review

In the event that the client has elected to revise and re-submit its emissions data report to CARB, under this scope of work, SCS will perform one additional review of the submitted data in response to the statement of initial findings presented in Step 5. In accordance with the requirements of §95131, SCS will keep a log of any material misstatements and nonconformance's, as well as how these issues were resolved. In addition, note that the scope of work is limited to a single re-review of submitted data. Additional emissions data report modifications and re-reviews, are subject to additional cost. SCS will not perform any additional scope work without prior authorization from the client.

Completion of Verification Services

Upon completion of verification services outlined in Task 3, SCS will prepare a separate, detailed verification report for each facility, which will include a copy of the verification plan, a detailed comparison of the data checks with the submitted emission data report, a log of findings (including identified issues and their resolution), and any qualifying comments.

PROPOSED SCHEDULE

Based on previous delays with contract execution, SCS is proposing the following schedule for completion of the verification project.

Exhibit 1 Project Schedule	
Scope Item	Est. Completion Date
1. Submittal of required information to complete CARB COI (1 week)	July 13 th (actual)
2. Processing of COI determination by CARB (45 days) ^{1,2}	August 2 nd (actual)
3. Processing of NOVS determination by CARB (10 days) ^{1,2}	July 23 rd (actual)
4. Proposed site visit and interviews	September 8 th -10 th
5. Evaluation of GHG reports (1 week)	November 17 th
6. Verification report review by IID (1 week)	November 24 th
7. Meeting with IID staff to discuss deliverable	November 24 th
8. Final verification report and submittal of information to CARB (1 week)	December 1 st

¹Mandatory review times stipulated by CARB.

²Reduced COI and NOVS review time by CARB will allow the AB32 verification schedule to proceed earlier than proposed.

These dates should be considered approximate and subject to change based on the findings of the site visits and data review. Note that this schedule does not incorporate iterative GHG report reviews.

If you have further comments or requests regarding the proposed investigation, please contact the undersigned at (916) 361-1297.

Sincerely,



John Henkelman
Project Professional
Staff Verifier
SCS ENGINEERS



Raymond Huff
Vice President
Lead Verifier
SCS ENGINEERS

APPENDIX C

Issues Log

Initial Verification Findings Log
Biggs Municipal Utilities – CARB ID 3026
CARB Reporting – 2010

This document presents a log of SCS ‘findings from verification activities for the Biggs Municipal Utilities’ (BMP’s) operation. These findings are numbered consecutively and coded based on the nature of the finding:

- **AIR = Additional Information Request**
SCS is requesting additional ‘raw’ data, manufacture’s specification, backup spreadsheets, or revised spreadsheets for review for review. This additional information will help SCS conduct their statistical sampling of your emissions report.
- **CAR = Corrective Action Request**
SCS has identified material and immaterial misstatements in your emissions report. Corrective action is required to address discrepancies between calculations and/or emissions sources. If the participant does not feel any corrective action is necessary, please provide an explanation to SCS on the rationale behind the original CAR in question.
- **RFC = Request for Clarification**
SCS is requesting clarification on the methods, reasoning, database, or etc. of your company’s GHG management systems, calculations methodologies, emissions sources, or etc..
- **OBS = Observation**
SCS has made an observation regarding your company’s inventory, GHG management systems, calculations methodologies, or etc. which was immaterial to your company’s annual emission report, but may provide an improved inventory.

Table 1 includes a description of the issue, its potential impact on emissions (either under- or over-estimate), a summary of action required to mitigate the issue, and a summary of the issue's impact on materiality. Note that seemingly immaterial misstatements, when aggregated, may result in a material misstatement in the event that the difference in the calculation of emissions is more than 5% of the total combined emissions from the emissions summary report. Table 2 is provided for use by the client to document corrective action taken.

Note that this list may be augmented as verification activities proceed based on the availability of new data (from AIRs) and/or review of corrective actions resulting from CAR responses.

Protocol: CCR 95100-95133

Date Submitted: November 11, 2011

Response Submitted: November 23, 2011

Table 1 - Verification Findings Summary

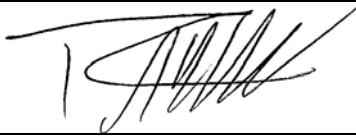

Issue Type and No.	Issue Date and Description	Potential Impact on Emissions Estimation	Materiality
RFC 1	11/11/11 The unspecified purchases reported (1,160 MWh from NCPA market purchases and 8,679 MWh from NCPA term contracts) match the value in the BMU in the Power Product Description table; however, the value could not be correlated to backup data in the Excel backup data (ARBCYProjected MWh 1.xls). Please explain why the data from the Product Description value was used and why it does not correspond do the value in the Excel file.	Unknown	Immaterial

Table 2 - Verification Findings Response Summary

Issue Type and No.	Issue Response	Respondent	Lead Verifier Comment	Additional Action Required?
RFC 1	11/23/11 I first enter totals from Member Contract, Market Contracts and ISO Energy Purchases into the “MKT Transactions from Bill” on the Power Product Description worksheet – The totals are then divided into Member Contracts / Market and ISO Purchases then subtracting the Market Sales to get Net totals.	Debi Wilson	11/23/11 The response clarifies how transactions are handled. The item is closed.	No

APPENDIX D
Verification Opinion

California Air Resources Board
VERIFICATION OPINION

For Official Use Only	
Date Received:	
PART I. EMISSIONS DATA REPORT INFORMATION	
1. REPORTING YEAR: 2010	2. NAICS CODE: 2211
PART II. VERIFICATION BODY INFORMATION	
1. VERIFICATION BODY NAME: SCS Engineers	2. ARB ID NUMBER: H-09-011
Part III. FACILITY or ENTITY INFORMATION	
1. NAME OF FACILITY OR ENTITY: Biggs Municipal Utilities	2. ARB ID NUMBER: 3026
Part IV. VERIFICATION OPINION INFORMATION	
<p>1. This verification opinion attests that the submitted data report is (check only one):</p> <p><input checked="" type="checkbox"/> reasonably assured of being free of material misstatements;</p> <p><input type="checkbox"/> NOT reasonably assured of being free of material misstatements.</p> <p>2. This verification opinion attests that the submitted emissions data report is (check only one):</p> <p><input checked="" type="checkbox"/> reasonably assured of being in conformance with the regulation;</p> <p><input type="checkbox"/> NOT reasonably assured of being in conformance with the regulation.</p> <p>3. As a result of the selections above the final verification opinion is (check only one)</p> <p><input checked="" type="checkbox"/> positive;</p> <p><input type="checkbox"/> adverse.</p> <p>4. Qualifying Statements or Comments:</p>	
Part V SIGNATURES	
<p>Lead Verifier. In signing this verification opinion, I certify under penalty of perjury of the laws of California that the information contained in this document is true, accurate and complete. I am the lead verifier for the verification team listed in the notification of verification services for this emissions data report. I attest that I conducted the verification services supporting this opinion in the manner required by the mandatory GHG reporting regulation (Section 95131, Title 17, California Code of Regulations)</p>	
1. SIGNATURE: 	2. PRINTED NAME: RAYMOND HUFF
3. TITLE: PROJECT DIRECTOR	4. DATE: 11/29/11
<p>Independent Review. In signing this verification opinion, I certify under penalty of perjury of the laws of California that the information contained in this document is true, accurate and complete. I am the lead verifier listed as the independent reviewer in the notice of verification services for this emissions data report. I attest that I was not involved in the verification services documented in this opinion, but have conducted an independent review of the verification services and findings of the verification team and concur with this verification opinion as required in the mandatory GHG reporting regulation (Section 95131, Title 17, California Code of Regulations).</p>	
1. SIGNATURE: 	2. PRINTED NAME: PATRICK S SULLIVAN
3. TITLE: SENIOR VICE PRESIDENT	4. DATE: 11/30/11