



Fuel Suppliers and Hydrogen Producers Reporting GHG Emissions

Subpart P - Hydrogen Production

Subpart MM – Suppliers of Transportation Fuels

Subpart NN – Suppliers of Natural Gas and Natural Gas Liquids

Subpart PP – Suppliers of Carbon Dioxide

March 21, 2012

Presentation Slides Available Here:

<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>



This training is provided by ARB solely for informational purposes. It does not provide legal advice and does not have legally binding effect. This training does not supplant, replace or amend any of the legal requirements in the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, sections 95100-95157. Conversely, any omission or truncation of regulatory requirements found within this training does not relieve any entity or person of their legal obligations to fully comply with all requirements of the regulation.


Training Resources

- Reporting Guidance: Applicability, Metering
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>
- Cal e-GGRT Main Help Page
<http://www.ccdsupport.com/confluence/display/calhelp/Home>
- U.S. EPA Detailed Sector Training Slides
<http://www.epa.gov/climatechange/emissions/training.html>
(use as a supplement to ARB summary slides)
- Tool Training: Registration, Subparts
<http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm>
- Cal e-GGRT Sandbox Training Site
<https://ssldev.arb.ca.gov/Cal-eGGRT/>

Cal e-GGRT Help

<http://www.ccdsupport.com/confluence/display/calhelp/Home>

California Environmental Protection Agency
 **Air Resources Board**

 Cal e-GGRT
California Electronic Greenhouse Gas
Reporting Tool


[Home](#)

Note: The Cal e-GGRT help system includes general instruction on using the California GHG reporting tool. However, the help system may not explain differences between California and U.S. EPA reporting requirements. Please refer to the ARB reporting website for California-specific reporting requirements and additional help.


Home

Welcome to Cal e-GGRT Help


This site contains news, tutorials, FAQs, help and other information about Cal e-GGRT.

 **Cal e-GGRT News**

News feeds and links coming soon!

 **Learn About Cal e-GGRT**

- [Registration Instructions](#)
- [GHG Reporting Instructions](#)
- [ARB Outreach and Training](#)

 **Help**

- [About ARB's Mandatory GHG Emission Reporting and AB32](#)
- [About EPA's GHG Reporting Program and Part 98](#)
- [Harmonization of CARB's Cal e-GGRT and EPA's e-GGRT](#)
- [Frequently Asked Questions \(FAQs\)](#)
- [Known Issues](#)
- [Contact Us](#)

[FAQs](#) – [Glossary](#) – [Contact Us](#) – [ARB GHG Reporting](#)

Outline

- Define the regulatory basis for reporting
 - Which EPA and ARB regulations pertain to your reporting subpart?
- Overview of Cal e-GGRT
 - Registration
 - Tabs (Home, Facility Management, Data Reporting)
 - Adding Subparts to define your facility reporting footprint
- Data reporting for your Subpart

Subpart P

ARB Regulatory Basis for Reporting

Date	Action
1/1/2012	California Air Resources Board MRR Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, Sections 95100-95157 http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/2010_regulation.htm
12/17/2010	Corrects technical and editorial errors, and clarifies rule provisions for subparts C, D, E, F, G, H, K, N, O, P, Q, R, S, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, NN, OO and PP. Preamble and Rule (PDF) (81 pp, 667K)
10/28/2010	Corrects technical and editorial errors, and clarifies rule provisions for subparts E, H, K, N, O, P, Q, S, V, Z, CC, EE, GG, HH, LL, and NN. Preamble and Rule (PDF) (47 pp, 376K)
10/30/2009	Finalizes the mandatory reporting of 30 source categories for Reporting Year 2010. These comprise subparts: A, C, D, E, F, G, H, N, O, P, Q, R, S, U, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, LL, MM, NN, OO, and PP. Preamble and Rule (PDF) (261 pp, 2.6MB)

Subpart MM

ARB Regulatory Basis for Reporting

Date	Action
1/1/2012	California Air Resources Board MRR Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, Sections 95100-95157 http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/2010_regulation.htm
10/28/2010	Corrects technical and editorial errors, and clarifies rule provisions for subparts E, H, K, N, O, P, Q, S, V, Z, CC, EE, GG, HH, LL, and NN. Preamble and Rule (PDF) (47 pp, 376K) (MM also addressed)
10/30/2009	Finalizes the mandatory reporting of 30 source categories for Reporting Year 2010. These comprise subparts: A, C, D, E, F, G, H, N, O, P, Q, R, S, U, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, LL, MM, NN, OO, and PP. Preamble and Rule (PDF) (261 pp, 2.6MB)

Subpart NN

ARB Regulatory Basis for Reporting

Date	Action
1/1/2012	California Air Resources Board MRR Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, Sections 95100-95157 http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/2010_regulation.htm
12/17/2010	US EPA - Corrects technical and editorial errors, and clarifies rule provisions for subparts C, D, E, F, G, H, K, N, O, P, Q, R, S, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, NN , OO and PP. Preamble and Rule (PDF) (81 pp, 667K)
10/28/2010	US EPA - Corrects technical and editorial errors, and clarifies rule provisions for subparts E, H, K, N, O, P, Q, S, V, Z, CC, EE, GG, HH, LL, and NN . Preamble and Rule (PDF) (47 pp, 376K)
10/30/2009	US EPA - Finalizes the mandatory reporting of 30 source categories for Reporting Year 2010. These comprise subparts: A, C, D, E, F, G, H, N, O, P, Q, R, S, U, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, LL, MM, NN , OO, and PP. Preamble and Rule (PDF) (261 pp, 2.6MB)

Subpart PP

ARB Regulatory Basis for Reporting

Date	Action
1/1/2012	California Air Resources Board MRR Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, Sections 95100-95157 http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/2010_regulation.htm
12/17/2010	US EPA - Corrects technical and editorial errors, and clarifies rule provisions for subparts C, D, E, F, G, H, K, N, O, P, Q, R, S, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, NN, OO and PP . Preamble and Rule (PDF) (81 pp, 667K)
10/30/2009	US EPA - Finalizes the mandatory reporting of 30 source categories for Reporting Year 2010. These comprise subparts: A, C, D, E, F, G, H, N, O, P, Q, R, S, U, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, LL, MM, NN, OO, and PP . Preamble and Rule (PDF) (261 pp, 2.6MB)

What is Cal e-GGRT Used For?

- Cal e-GGRT is the system used to report all data required by the GHG mandatory reporting regulation.
- The tool contains modules for each sector required to report.
 - Also includes modules for Fee Regulation and SF₆
- Multiple users can be associated with a single facility or entity.
- Verifiers can be associated with facilities and entities in the tool for data review purposes.

Overview of Cal e-GGRT Operation

- Registration – old and new reporters.
- Input required facility information.
- Adding subparts for reporting.
- Entering emissions data.
- Data reporting mechanisms.
 - Direct interface, XML spreadsheet uploads, spreadsheet attachments (varies by sector)
- Validation messages.

Registration

- Need an ARB Registration Code to register in Cal e-GGRT
 - New reporters must request an ARB Registration Code prior to registration. Send an e-mail request to

ghgreport@arb.ca.gov

March 1: Registration and System Overview

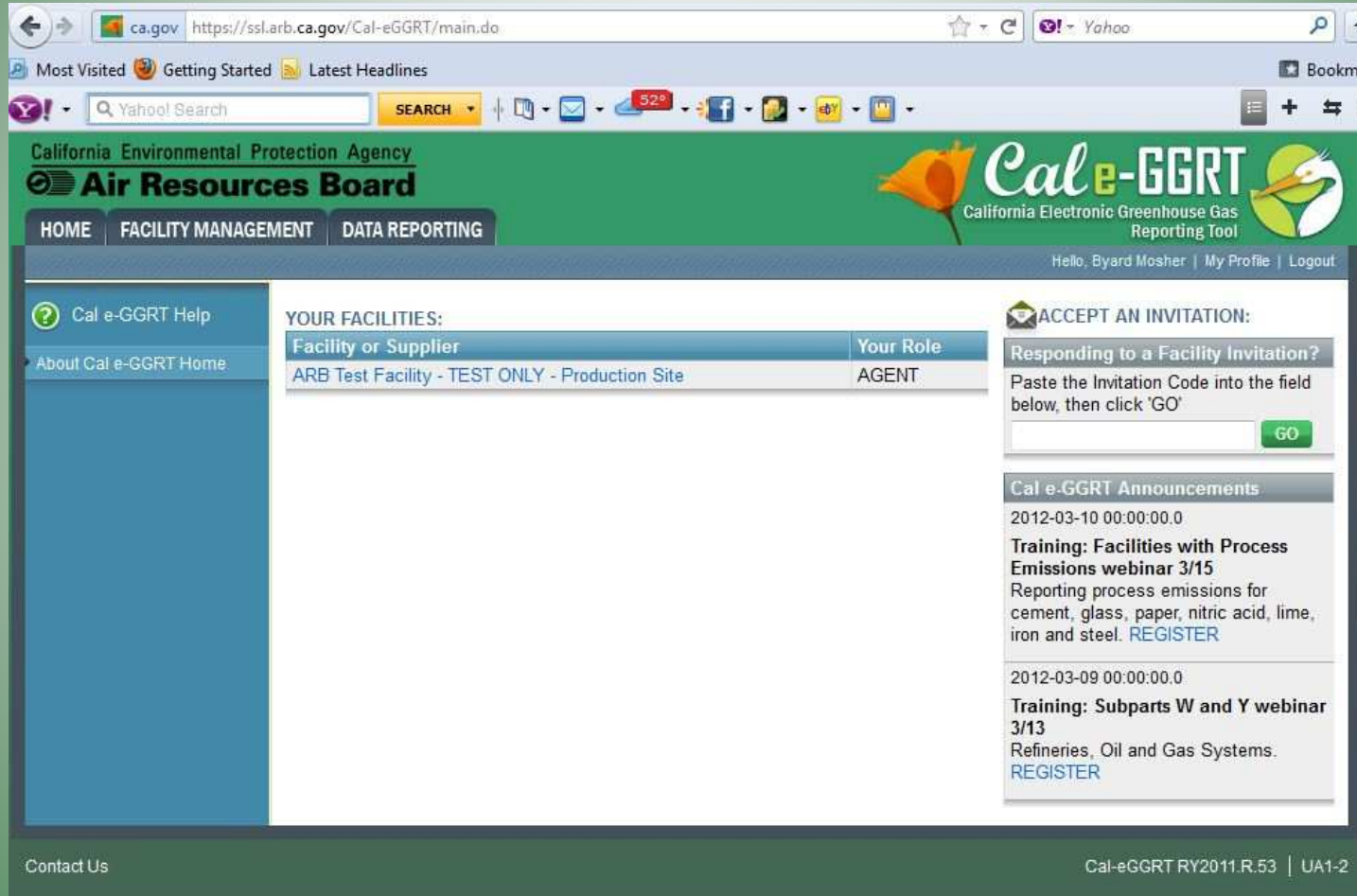
A brief overview of registering in the new Cal e-GGRT system and overall system operation.

Slides: [1-per-page \(color\)](#) [4-per-page \(B&W\)](#)

[Detailed Registration Instructions](#)

Cal e-GGRT Tabs

Home tab



The screenshot shows a web browser window displaying the Cal e-GGRT Home tab. The browser address bar shows the URL: <https://ssl.arb.ca.gov/Cal-eGGRT/main.do>. The page header includes the California Environmental Protection Agency Air Resources Board logo and the Cal e-GGRT logo. Navigation tabs are labeled HOME, FACILITY MANAGEMENT, and DATA REPORTING. The user is logged in as "Byard Mosher" and has options for "My Profile" and "Logout".

On the left side, there is a "Cal e-GGRT Help" section with a link to "About Cal e-GGRT Home".

The main content area is titled "YOUR FACILITIES:" and contains a table:

Facility or Supplier	Your Role
ARB Test Facility - TEST ONLY - Production Site	AGENT

On the right side, there is an "ACCEPT AN INVITATION:" section with a sub-section "Responding to a Facility Invitation?". It includes a text input field for the invitation code and a "GO" button. Below this is a "Cal e-GGRT Announcements" section with two entries:

- 2012-03-10 00:00:00.0**
Training: Facilities with Process Emissions webinar 3/15
Reporting process emissions for cement, glass, paper, nitric acid, lime, iron and steel. [REGISTER](#)
- 2012-03-09 00:00:00.0**
Training: Subparts W and Y webinar 3/13
Refineries, Oil and Gas Systems. [REGISTER](#)

At the bottom left, there is a "Contact Us" link. At the bottom right, the version information is displayed: "Cal-eGGRT RY2011.R.53 | UA1-2".

Cal e-GGRT Tabs

Facility Management Tab

California Environmental Protection Agency
Air Resources Board

HOME FACILITY MANAGEMENT DATA REPORTING

MY FACILITIES FACILITY SUMMARY Hello: Byard Mosher | My Profile | Logout

Cal e-GGRT Help
About Facility Management

ARB Test Facility - TEST ONLY - Production Site
Facility Summary

Cal e-GGRT FACILITY SUMMARY
From this summary page, depending upon your role, you can make changes to the "Facility Profile" information, the facility's representatives Designated Representative (DR) and Alternate Designated Representative (ADR), and to your Agents if you are a DR or ADR.

Certificate of Representation Signed and Complete: No further action is required by the facility representatives.

Facility Representatives

Designated Representative	Patrick Gaffney
Alternate Designated Representative	Karen Lutter

Facility Profile

Physical Address	ARB Test Facility - TEST ONLY - Production Site 1001 I Street Sacramento CA 95814
Mailing Address	ARB Test Facility - TEST ONLY - Production Site 1001 I Street Sacramento CA 95814

Certificate of Representation

Agent (for this facility)	for
Byard W Mosher	DR
Anny Huang (Pending)	DR

[✕ Remove self as Agent](#)

Cal e-GGRT Tabs

Data Reporting Tab

California Environmental Protection Agency
Air Resources Board

HOME FACILITY MANAGEMENT **DATA REPORTING**

Hello, Byard Mosher | My Profile | Logout

[Cal e-GGRT Help](#)

General Reporting Information

e-GGRT Greenhouse Gas Data Reporting

Select Facility

ANNUAL GHG DATA REPORTING

You must select a facility to begin using any Data Reporting features, which include: Specifying which subparts the facility will be reporting, entering or updating corporate parent information (subpart A), entering GHG data and viewing validation reports, and lastly, preparing and submitting the Annual Report to ARB.

REPORTING FACILITIES

ARB ID	Facility or Supplier	Annual Report Status	Facility Overview
999999	ARB Test Facility - TEST ONLY - Production Site (Sacramento, CA)	Not generated	OPEN

FACILITIES NOT REPORTING IN 2011:

ARB ID	Facility or Supplier	Annual Report Status	Facility Overview
No facilities found.			

Contact Us

Cal-eGGRT RY2011.R.53 | DR-facility-select

Reporting Emissions

California Environmental Protection Agency
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HOME
FACILITY MANAGEMENT
DATA REPORTING

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[Cal e-GGRT Help](#)

- ▶ [How to add a subpart and report data](#)
- ▶ [General reporting information](#)
- ▶ [How to submit an annual report](#)

ARB Test Facility - TEST ONLY - Production Site (2011)

Cal e-GGRT Greenhouse Gas Data Reporting

Select Facility » [Facility or Supplier Overview](#)

FACILITY OR SUPPLIER OVERVIEW

This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.

After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).

REPORT DATA

2011 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN

290,131

CO₂ equivalent emissions (excluding biogenic) from subparts C - HH (metric tons)

63,333

Biogenic CO₂ emissions from subparts C - HH (metric tons)

0

CO₂ equivalent quantity from supplier categories (metric tons)

[VIEW GHG DETAILS](#)

Reporting Emissions

REPORT DATA

2011 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN
Sections 95115, 95112 (Subpart C)—Stationary Fuel Combustion	View Messages	OPEN
Section 95114 (Subpart P)—Hydrogen Production	View Messages	OPEN
Section 95121 (Subpart MM)—Suppliers of Petroleum Products	View Messages	OPEN
Section 95122 (Subpart NN)—Suppliers of Natural Gas and NGLs	View Messages	OPEN
Section 95123 (Subpart PP)—Suppliers of Carbon Dioxide (CO2)	View Messages	OPEN
Sections 95201-95207—AB 32 Cost of Implementation Fee Regulation	View Messages	OPEN

[+ ADD or REMOVE Subparts](#)

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
Patrick Equation C-2b (HHV) Calculation Spreadsheet.xls	C	Patrick Gaffney	March 9, 2012

SUBMIT ANNUAL REPORT

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date

VERIFICATION BODY

You may only select a verification body after the report has been generated.

Reporting: Adding Subparts

Cal e-GGRT Help

How to add a subpart and report data

ARB Test Facility - TEST ONLY - Production Site (2011)

e-GGRT Greenhouse Gas Data Reporting

Select Facility » Facility Overview » Section (Subpart) Selection

SECTION (SUBPART) SELECTION

Please check all relevant ARB rule sections for this facility or supplier. Further information can be found in the e-GGRT Help links to the left.

EPA SUBPARTS D - AA

95112 (Subpart D)—Acid Rain Program EGU
Description ([SHOW](#) | [HIDE](#))

95110 (Subpart H)—Cement Production
Description ([SHOW](#) | [HIDE](#))

95116 (Subpart N)—Glass Production
Description ([SHOW](#) | [HIDE](#))

95114 (Subpart P)—Hydrogen Production
Description ([SHOW](#) | [HIDE](#))

95120 (Subpart Q)—Iron and Steel Production

GENERAL STATIONARY FUEL COMBUSTION

95115, 95112 (Subpart C)—Stationary Fuel Combustion
Description ([SHOW](#) | [HIDE](#))

SUPPLIER CATEGORIES

95121 (Subpart MM)—Suppliers of Petroleum Products
Description ([SHOW](#) | [HIDE](#))

95122 (Subpart NN)—Suppliers of Natural Gas and Natural Gas Liquids
Description ([SHOW](#) | [HIDE](#))

95123 (Subpart PP)—Suppliers of Carbon Dioxide

Reporting: Adding Subparts

Description ([SHOW](#) | [HIDE](#))

95114 (Subpart P)—Hydrogen Production
 Description ([SHOW](#) | [HIDE](#))

95120 (Subpart Q)—Iron and Steel Production
 Description ([SHOW](#) | [HIDE](#))

95117 (Subpart S)—Lime Manufacturing
 Description ([SHOW](#) | [HIDE](#))

95118 (Subpart V)—Nitric Acid Production
 Description ([SHOW](#) | [HIDE](#))

95150-95157 (Subpart W)—Oil and Natural Gas Systems
 Description ([SHOW](#) | [HIDE](#))

95113 (Subpart Y)—Petroleum Refineries
 Description ([SHOW](#) | [HIDE](#))

95119 (Subpart AA)—Pulp and Paper Manufacturing
 Description ([SHOW](#) | [HIDE](#))

95122 (Subpart NN)—Suppliers of Natural Gas and Natural Gas Liquids
 Description ([SHOW](#) | [HIDE](#))

95123 (Subpart PP)—Suppliers of Carbon Dioxide
 Description ([SHOW](#) | [HIDE](#))

AB 32 COST OF IMPLEMENTATION FEE REGULATION

95201-95207—AB 32 Cost of Implementation Fee Regulation
 Description ([SHOW](#) | [HIDE](#))

SF6 GAS INSULATED SWITCHGEAR

95350-95359—SF6 Gas Insulated Switchgear
 Description ([SHOW](#) | [HIDE](#))

ELECTRIC POWER ENTITIES

95111—Electric Power Entities
 Not currently available for selection.

 Description ([SHOW](#) | [HIDE](#))

Data Reporting

REPORT DATA

2011 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN
Sections 95115, 95112 (Subpart C)—Stationary Fuel Combustion	View Messages	OPEN
Section 95114 (Subpart P)—Hydrogen Production	View Messages	OPEN
Section 95121 (Subpart MM)—Suppliers of Petroleum Products	View Messages	OPEN
Section 95122 (Subpart NN)—Suppliers of Natural Gas and NGLs	View Messages	OPEN
Section 95123 (Subpart PP)—Suppliers of Carbon Dioxide (CO2)	View Messages	OPEN
Sections 95201-95207—AB 32 Cost of Implementation Fee Regulation	View Messages	OPEN

[+ ADD or REMOVE Subparts](#)

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
Patrick Equation C-2b (HHV) Calculation Spreadsheet.xls	C	Patrick Gaffney	March 9, 2012

SUBMIT ANNUAL REPORT

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date

VERIFICATION BODY

You may only select a verification body after the report has been generated.

Data Reporting – Subpart P

(Open Subpart P module to begin reporting)

ARB Test Facility - TEST ONLY - Production Site (2011)

Section 95114 (Subpart P): Hydrogen Production

Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

Subpart P is for facilities that produce hydrogen gas sold as a product to other entities. It includes process units that produce hydrogen by reforming, gasification, oxidation, reaction, or other transformations of feedstocks. This source category includes merchant hydrogen production facilities located within a petroleum refinery if they are not owned by, or under the direct control of, the refinery owner and operator.



[Subpart P: View Validation](#)

OTHER FACILITY REPORTING INFO

Carbon, other than CO ₂ , collected and transferred off site (kg carbon)	Annual quantity of liquefied hydrogen produced (short tons)

[OPEN](#)

HYDROGEN PRODUCTION UNITS

Name/ID	CO ₂ (metric tons)	Status ¹	Delete
No units have been added			

[+ ADD a Unit](#)

HYDROGEN PRODUCTION UNITS (Units monitored by CEMS)

Name/ID	Status ¹	Delete
No units have been added		

[+ ADD a Unit Monitored by CEMS](#)

[↑ Facility Overview](#)

¹A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness

Reporting – Subpart P

(other facility info)

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HOME FACILITY MANAGEMENT DATA REPORTING

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Cal e-GGRT Help
Using Cal e-GGRT for Subpart P reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95114 (Subpart P): Hydrogen Production
Subpart Overview » **Other Facility Reporting Info**

SUBPART P OTHER INFORMATION
Please complete the required information included below.

Annual quantity of carbon, other than CO₂, collected and transferred off site in either gas, liquid or solid forms (kg carbon)

Annual quantity of liquefied hydrogen produced (short tons)

CANCEL SAVE

Reporting - Subpart P

(add a unit)

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HOME FACILITY MANAGEMENT DATA REPORTING

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Cal e-GGRT Help
Using Cal e-GGRT for Subpart P reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95114 (Subpart P): Hydrogen Production
Subpart Overview » Add/Edit a Unit » CEMS

SUBPART P UNITS
Please indicate if this unit's emissions are monitored using a (CEMS). * denotes a required field

CONTINUOUS EMISSIONS MONITORING

Is this unit's emissions* monitored using a CEMS?
 Yes
 No

CANCEL SAVE

Contact Us

Cal-eGGRT RY2011.R.54 | P(cems)

Reporting – Subpart P

(new unit)

Section 95114 (Subpart P): Hydrogen Production

[Subpart Overview](#) » [Add/Edit a Unit](#)

SUBPART P HYDROGEN PRODUCTION UNIT

Please identify and enter the information about the Unit below. Also, add each carbon-containing input and output material. * denotes a required field

UNIT INFORMATION

Name or ID *	<input type="text" value="Big Boy 1"/>	(40 characters maximum)
Description (optional)	<input type="text" value="SMR Unit"/>	
Type	Hydrogen production process unit	

UNIT PRODUCTION INFORMATION

Quantity of hydrogen produced	<input type="text" value="4500000"/>	(metric tons)
Quantity of ammonia produced	<input type="text" value="0"/>	(metric tons)

FUELS AND FEEDSTOCKS

Name	Type	Delete
+ ADD a Fuel or Feedstock		

CONTINUOUS EMISSIONS MONITORING

Is this unit's emissions* monitored using a CEMS?

Yes
 No

Note: Changing the answer to this question will result in losing any data, associated with this Unit for the current reporting year, as the reporting requirements will change.

Reporting – Subpart P

(adding a fuel or feedstock)

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95114 (Subpart P): Hydrogen Production

Subpart Overview » Add/Edit a Unit » **Feedstock**

SUBPART P HYDROGEN PRODUCTION UNIT

Please identify the fuel or feedstock.

* denotes a required field

UNIT

Name or ID Big Boy 1

FUEL OR FEEDSTOCK DETAILS

Name * Natural Gas

Type * gaseous feedstock

CANCEL

SAVE

Reporting – Subpart P

HOME
FACILITY MANAGEMENT
DATA REPORTING

California Electronic Greenhouse Gas Reporting Tool

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Cal e-GGRT Help

Using Cal e-GGRT for Subpart P reporting

ARB Test Facility - TEST ONLY - Production Site (2011)

Section 95114 (Subpart P): Hydrogen Production

Subpart Overview » GHG Info » **Big Boy 1**

CO₂CARBON DIOXIDE (CO₂) EMISSIONS CALCULATION

Use equation P-1, P-2 and/or P-3 for each feedstock below as appropriate to calculate unit-total annual CO₂ process emissions for this hydrogen processing unit.

Annual CO₂ process emissions (metric tons)

NATURAL GAS

Use the Equation P-1 Calculation Spreadsheet to calculate the result. Upload the completed XML exported from the spreadsheet.

[Equation P-1 Calculation Spreadsheet](#)


Browse...
UPLOAD


Uploaded File Name	Attached By	Date	Delete
No files found.			

If any consumption, carbon content or molecular weight (if gaseous) values are based on substitute data values ▶ Indicate which are based on substitute data values

CANCEL

Reporting – Subpart P





Home » [Subpart Reporting Instructions](#) » [Subpart P - Hydrogen Production](#) » [Using Subpart P Calculation Spreadsheets](#)

Note: The Cal e-GGRT help system includes general instruction on using the California GHG reporting tool. However, the help system may not explain differences between California and U.S. EPA reporting requirements. Please refer to the ARB reporting website for California-specific reporting requirements and additional help.

Using Subpart P Calculation Spreadsheets

This help page provides guidance for working with the supplemental Subpart P calculation spreadsheets. The guidance provides step-by-step instructions for the following tasks:

- [Selecting the Appropriate Calculation Spreadsheet](#)
- [Downloading a Calculation Spreadsheet](#)
- [Exporting XML from a Completed Spreadsheet](#)
- [General information on Using a Calculation Spreadsheet](#)
- [Using the Equation P-1 Calculation Spreadsheet](#)
- [Using the Equation P-2 Calculation Spreadsheet](#)
- [Using the Equation P-3 Calculation Spreadsheet](#)

Specific information on each of the calculation spreadsheets is provided below:

Calculation Spreadsheets (click to download)	Selection Criteria: Feedstock Type	Instructions (click to view)
Equation P-1 Calculation Spreadsheet.xls	Gaseous	P-1 Help
Equation P-2 Calculation Spreadsheet.xls	Liquid	P-2 Help
Equation P-3 Calculation Spreadsheet.xls	Solid	P-3 Help

Reporting – Subpart P

Calculation Spreadsheets (click to download)	Selection Criteria: Feedstock Type	Instructions (click to view)
Equation P-1 Calculation Spreadsheet.xls	Gaseous	P-1 Help
Equation P-2 Calculation Spreadsheet.xls	Liquid	P-2 Help
Equation P-3 Calculation Spreadsheet.xls	Solid	P-3 Help

Selecting the Appropriate Calculation Spreadsheet

Subpart P requires a facility to report annual CO₂ emissions from each hydrogen production process unit. To calculate the annual CO₂ emissions from each hydrogen production process unit, users must use one or more of three equations based on the unit feedstock consumed during the data collection year. Users may use different calculation worksheets for different process units as required by the feedstock type for each unit. Users may use more than one calculation worksheet for a process unit if the unit has more than one type of feedstock.

For each process unit with a **gaseous** feedstock, users should calculate annual CO₂ emissions using Equation P-1 via the Equation P-1 Calculation Worksheet. Equation P-1 is provided below:

(Equation P-1)

$$CO_2 = \left(\sum_{n=1}^k \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC} \right) * 0.001$$

For each process unit with a **liquid** feedstock, users should calculate annual CO₂ emissions using Equation P-2 via the Equation P-2 Calculation Worksheet. Equation P-2 is provided below:

(Equation P-2)

$$CO_2 = \left(\sum_{n=1}^k \frac{44}{12} * Fdstk_n * CC_n \right) * 0.001$$

Reporting – Subpart P

Subpart P - Hydrogen Production - Calculating CO₂ Emissions Using Equation P-1

FOLLOW THE INSTRUCTIONS ON THE NEXT TAB (DATA EXPORT GUIDANCE) FOR INSTRUCTIONS ON HOW TO EXPORT YOUR DATA

Version: Cal e-GGRT RY2011.R.01
 Today's date: 3/16/2012

Equation P-1:

$$CO_2 = \left(\sum_{n=1}^k \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC} \right) * 0.001$$

Facility Name:

Reporter Name:

Unit Name/ID:

Reporting Period:

Comments:

Unit Type: Hydrogen Production Process Unit

Input Data

Month	[Fdstkn] = Volume of the gaseous fuel and feedstock used in month n (scf (at standard conditions of 68 °F and atmospheric pressure) of fuel and feedstock)	[CCn] = Average carbon content of the gaseous fuel and feedstock, from the results of one or more analyses for month n (kg carbon per kg of fuel and feedstock). If measurements are taken more frequently than monthly, use the arithmetic average.	[MWn] = molecular weight of the gaseous fuel and feedstock, from the results of one or more analyses for month n (kg/kg)
January	<input type="text"/>	<input type="text"/>	<input type="text"/>
February	<input type="text"/>	<input type="text"/>	<input type="text"/>
March	<input type="text"/>	<input type="text"/>	<input type="text"/>
April	<input type="text"/>	<input type="text"/>	<input type="text"/>

Equation P-1 | Data Export Guidance

Reporting – Subpart P

Subpart P - Hydrogen Production - Calculating CO₂ Emissions Using Equation P-1

FOLLOW THE INSTRUCTIONS ON THE NEXT TAB (DATA EXPORT GUIDANCE) FOR INSTRUCTIONS ON HOW TO EXPORT YOUR DATA

Version: Cal e-GGRT RY2011.R.01
 Today's date: 3/16/2012

Equation P-1:

$$CO_2 = \left(\sum_{n=1}^k \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC} \right) * 0.001$$

Facility Name:

Reporter Name:

Unit Name/ID:

Reporting Period:

Comments:

Unit Type: Hydrogen Production Process Unit

Input Data

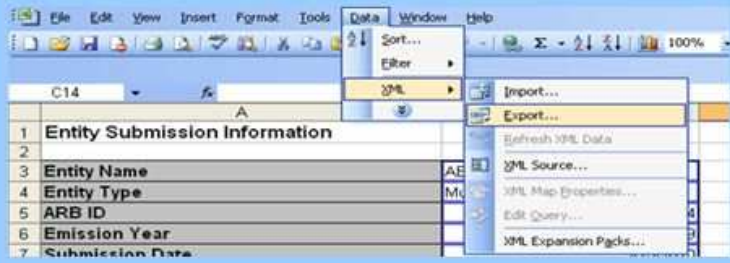
Month	[Fdstkn] = Volume of the gaseous fuel and feedstock used in month n (scf (at standard conditions of 68 °F and atmospheric pressure) of fuel and feedstock)	[CCn] = Average carbon content of the gaseous fuel and feedstock, from the results of one or more analyses for month n (kg carbon per kg of fuel and feedstock). If measurements are taken more frequently than monthly, use the arithmetic average.	[MWn] = molecular weight of the gaseous fuel and feedstock (kg/kg)
January	<input type="text"/>	<input type="text"/>	<input type="text"/>
February	<input type="text"/>	<input type="text"/>	<input type="text"/>
March	<input type="text"/>	<input type="text"/>	<input type="text"/>
April	<input type="text"/>	<input type="text"/>	<input type="text"/>

Equation P-1 | Data Export Guidance

Reporting – Subpart P

Guidance for Exporting Data to XML

1. Enter all data for each worksheet within the workbook where indicated.
2. Save your workbook.
3. Export Excel data to XML.
4. For Excel 2003, select the menu **Data / XML / Export**.



5. For Excel 2007 and Excel 2010, right click within a linked cell. Select **XML / Export**.

Equation P-1:

$$CO_2 = \left(\sum_{n=1}^k \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC} \right) * 0.001$$

Facility Name: _____
 Reporter Name: _____
 Unit Name/ ID: _____
 Reporting Period: _____
 Comments: _____
 Unit Type: Hydrogen Production Process Unit

Input Data

Equation P-1 Data Export Guidance

Additional Information for Hydrogen Producers who also report as Suppliers of Carbon Dioxide

- Does your facility capture and sell CO₂?
- If you are required to report under Subpart PP (Suppliers of CO₂)- there is the possibility of double-counting “transferred CO₂” emissions.
- Use the provision in 95114(g) to subtract emissions that are reported using other calculation methods from your facility total.
- ARB will issue guidance on this topic.

Reporting – Subpart MM

California Environmental Protection Agency
Air Resources Board

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[Cal e-GGRT Help](#)

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95121 (Subpart MM): Suppliers of Petroleum Products
[Subpart MM Overview](#)

OVERVIEW OF SUBPART MM REPORTING REQUIREMENTS
 Subpart MM requires uploading an XML file. Please use the MM spreadsheet to create your XML and upload the file here.

 **Subpart MM: View Validation**

SUBPART MM SUMMARY INFORMATION FOR THIS FACILITY

1.) **DOWNLOAD FORM**

▶ [Suppliers of Transportation Fuels Calculation and Reporting Tool](#)

2.) **UPLOAD COMPLETED FORM**

Uploaded File Name	Attached By	Date	Delete
No files found.			

[↑ Facility Overview](#)

[Contact Us](#)

Cal-eGGRT RY2011.R.54 | MM-overview

Reporting – Subpart MM

[Home](#) » [GHG Reporting Instructions](#) » [Reporting Form Instructions](#)

Search

Note: The Cal e-GGRT help system includes general instruction on using the California GHG reporting tool. However, the help system may not explain differences between California and U.S. EPA reporting requirements. Please refer to the ARB reporting website for California-specific reporting requirements and additional help.

Reporting Form Instructions

This help page provides guidance for using Reporting Forms and Cal e-GGRT to report GHG emissions and other required information for a subpart.

For each applicable subpart from the list below, users must report their facility's total emissions of each applicable GHG directly into Cal e-GGRT and submit required supplemental data and information using Excel-based Reporting Forms which may be downloaded as described below. The Reporting Forms are meant to provide reporters with a simple and straightforward means for reporting required data and information for the subparts listed below and DO NOT ASSIST REPORTERS IN CALCULATING EMISSIONS:

- Subpart A - General Information
- Subpart Q - Iron and Steel Production
- Subpart S - Lime Manufacturing (CEMS users only)
- Subpart V - Nitric Acid Production
- Subpart W - Oil and Natural Gas Systems
- Subpart Y - Petroleum Refineries
- Subpart MM - Suppliers of Petroleum Products
- Subpart NN - Suppliers of Natural Gas and Natural Gas Liquids
- SF6 Gas Insulated Switchgear
- Electric Power Entities

The general process for reporting under each of the listed subparts is essentially similar.

Reporting – Subpart MM

	Tool.xls		
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Activity Data Workbook.xls	n/a	XLS
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Calculation Tool.xls	n/a	n/a
Y - Petroleum Refineries	Subpart Y Additional Production Data and Solomon Energy Efficiency Index.xls	n/a	XLS
MM - Suppliers of Transportation Fuels Calculation and Reporting Tool	Suppliers of Transportation Fuels Calculation and Reporting Tool.xls	carb_subpart_mm.xsd	XML
NN - Suppliers of Natural Gas and NGLs	Subpart NN - Interstate NG Pipeline.xls	n/a	XLS
SF6 Gas Insulated Switchgears	SF6 Gas Insulated Switchgear (GIS) Reporting.xls	n/a	XLS
Electric Power Entities	Workbook 1 - Electricity Imports and Exports (beta-test version).xls	carb_epe_import_export.xsd	XML
Electric Power Entities	Workbook 2 EPE Supplementary Data for MJRP.xls <i>(coming soon)</i>	n/a	XLS
Electric Power Entities	Workbook 3 EPE Supplementary Data for WAPA and DWR SWP.xls <i>(coming soon)</i>	n/a	XLS
Electric Power Entities	Workbook 4 EPE Optional Asset Controlling Supplier Report (BPA only).xls <i>(coming soon)</i>	n/a	XLS

Once all applicable Reporting Forms have been saved to your computer, open each file and enter the required information according to the general help provided below and the instructions provided within each Reporting Form. Always remember to save each completed Reporting Form when finished.

Reporting Forms General Help

The guidance provided in this section applies to all reporting forms. Additional subpart-specific guidance is provided within the reporting form(s) for each subpart:

Reporting - Subpart MM

A		B	C	D	E	F	G	H	I
1	Calculations and Reporting	Return to Instructions							
2		Calculate CO ₂ emissions using Equation MM-1 from 98.393(a)			Calculate CH ₄ and N ₂ O emissions using Equation C-8 from 98.33(c)(1) for M				
3	Reported Emissions	$CO_{2i} = Product_i * EF_i \quad (Eq. MM-1)$			$CH_4 \text{ or } N_2O = 1 \times 10^{-3} * Fuel * HHV * EF \quad (Eq. C-8)$				
4	Blendstock, Distillate Fuel Oil or Biomass-Derived fuel	[Product] Annual volume of product "i" produced, imported, or exported by the reporting party (barrels).	[EF _i] Product-specific CO ₂ emission factor from Table MM-1 (metric tons CO ₂ per barrel).	[CO ₂] Annual CO ₂ emissions that would result from the complete combustion or oxidation of each petroleum product or natural gas liquid "i" (metric tons).	[Fuel] Volume of the fuel combusted (gallons per year).	[HHV] Default high heat value of the fuel from Table C-1 of Subpart C (mmBtu per gallon)	[EF _{CH4}] Fuel-specific default emission factor for CH ₄ , from Table C-2 of Subpart C (kg CH ₄ per mmBtu).	[EF _{N2O}] Fuel-specific default emission factor for N ₂ O, from Table C-2 of Subpart C (kg N ₂ O per mmBtu).	[EF _{CH4}] Fuel-specific default emission factor for CH ₄ , from Table 1 of 95121(b)(3) (kg/barrel)
5	TOTAL	0		0					
6	CBOB—Summer								
7	Regular		0.3753	0.00					0.02
8	Midgrade		0.3758	0.00					0.02
9	Premium		0.3763	0.00					0.02
10	CBOB—Winter								
11	Regular		0.3663	0.00					0.02
12	Midgrade		0.3684	0.00					0.02
13	Premium		0.3705	0.00					0.02
14	RBOB—Summer								
15	Regular		0.3686	0.00					0.02
16	Midgrade		0.3677	0.00					0.02
17	Premium		0.367	0.00					0.02
18	RBOB—Winter								

Reporting - Subpart MM

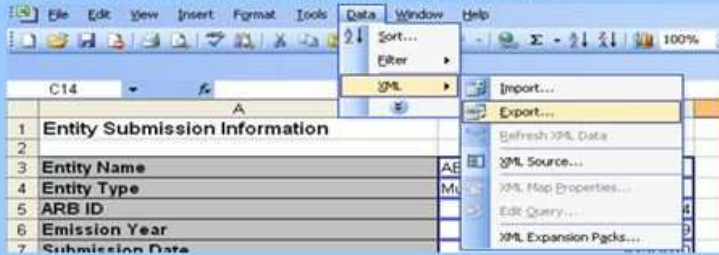
Calculations and Reporting									
A	B	C	D	E	F	G	H	I	
1	Calculations and Reporting	Return to Instructions							
2									
3	Reported Emissions	Calculate CO ₂ emissions using Equation MM-1 from 98.393(a) $CO_{2i} = Product_i * EF_i$ (Eq. MM-1)			Calculate CH ₄ and N ₂ O emissions using Equation C-8 from 98.33(c)(1) for M $CH_4 \text{ or } N_2O = 1 \times 10^{-3} * Fuel * HHV * EF$ (Eq. C-8)				
4	Blendstock, Distillate Fuel Oil or Biomass-Derived fuel	[Product] Annual volume of product "i" produced, imported, or exported by the reporting party (barrels).	[EF _i] Product-specific CO ₂ emission factor from Table MM-1 (metric tons CO ₂ per barrel).	[CO ₂] Annual CO ₂ emissions that would result from the complete combustion or oxidation of each petroleum product or natural gas liquid "i" (metric tons).	[Fuel] Volume of the fuel combusted (gallons per year).	[HHV] Default high heat value of the fuel from Table C-1 of Subpart C (mmBtu per gallon)	[EF _{CH4}] Fuel-specific default emission factor for CH ₄ , from Table C-2 of Subpart C (kg CH ₄ per mmBtu).	[EF _{N2O}] Fuel-specific default emission factor for N ₂ O, from Table C-2 of Subpart C (kg N ₂ O per mmBtu).	[EF _{CH4}] Fuel-specific default emission factor for CH ₄ , from Table 1 of 95121(b)(3) (kg/barrel)
5	TOTAL	0		0					
6	CBOB—Summer								
7	Regular		0.3753	0.00				0.02	
8	Midgrade		0.3758	0.00				0.02	
9	Premium		0.3763	0.00				0.02	
10	CBOB—Winter								
11	Regular		0.3663	0.00				0.02	
12	Midgrade		0.3684	0.00				0.02	
13	Premium		0.3705	0.00				0.02	
14	RBOB—Summer								
15	Regular		0.3686	0.00				0.02	
16	Midgrade		0.3677	0.00				0.02	
17	Premium		0.367	0.00				0.02	
18	RBOB—Winter								

Reporting - Subpart MM

Guidance for Exporting Data to XML

1. Enter all data for each worksheet within the workbook where indicated.
2. Save your workbook.
3. Export Excel data to XML.

For Excel 2003, select the menu **Data / XML / Export**.




For Excel 2007 and Excel 2010, right click within a linked cell. Select **XML / Export**.

Equation P-1:

$$CO_2 = \sum_{n=1}^k \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC} * 0.001$$

Facility Name: _____
 Reporter Name: _____
 Unit Name/ID: _____
 Reporting Period: _____
 Comments: _____
 Unit Type: Hydrogen Production Process Unit

Input Data



Reporting – Subpart NN



There are six Supplier Types:

- Publically Owned Natural Gas utility (LDC)
- Public Utility Gas Corp[oration] (LDC)
- Intrastate Natural Gas Pipelines (LDC)
- Interstate Natural Gas Pipelines
- Natural Gas Liquid Fractionator
- Liquefied Petroleum Gas Consignee

The screenshot shows the Cal e-GGRT web application interface. At the top, it displays the California Environmental Protection Agency Air Resources Board logo and the Cal e-GGRT logo. The navigation menu includes HOME, FACILITY MANAGEMENT, and DATA REPORTING. The user is logged in as 'Byard Mosher'. The main content area is titled 'ARB Test Facility - TEST ONLY - Production Site (2011)' and 'Section 95122 (Subpart NN): Suppliers of Natural Gas and Natural Gas Liquids'. A 'Subpart Overview' section provides an overview of reporting requirements. At the bottom, there is a 'Supplier Type*' dropdown menu with 'Select' as the current selection, and 'CANCEL' and 'START' buttons.

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Cal e-GGRT Help
Using Cal e-GGRT for Subpart NN reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95122 (Subpart NN): Suppliers of Natural Gas and Natural Gas Liquids
Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS
Subpart NN requires affected suppliers of natural gas and Natural Gas Liquids (NGL) to report the amount of carbon dioxide (CO₂) that would result from the complete combustion or oxidation of the annual quantity of products supplied. Use this page to identify your supplier type. For additional information about Subpart NN reporting, please use the Cal e-GGRT Help link(s) provided.

* denotes a required field

Supplier Type* Select [v] [CANCEL] [START]

Reporting – Subpart NN

ARB Test Facility - TEST ONLY - Production Site (2011)

Section 95122 (Subpart NN): Suppliers of Natural Gas and Natural Gas Liquids

[Subpart Overview](#)

OVERVIEW OF SUBPART REPORTING REQUIREMENTS FOR LOCAL DISTRIBUTION COMPANIES (LDCs)

Subpart NN requires affected natural gas LDCs to report the quantity of CO₂ that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end-users on their distribution systems. First, enter fuel supply and Greenhouse gas (GHG) data required by Subpart NN. Next, enter the natural gas volumes supplied to residential, commercial and industrial consumers and electricity generating facilities. For additional information about Subpart NN reporting, please use the Cal e-GGRT Help link(s) provided.

* denotes a required field



[Subpart NN: View Validation](#)

Supplier Type * Publicly-owned natural gas utility (LDC) [CHANGE](#)

GHG SUMMARY

Product	CO ₂ (metric tons)	Status ¹	
Natural Gas, Biomethane, Non-exempt Biomethane		Incomplete	OPEN

NATURAL GAS VOLUMES BY END USE CATEGORY (MSCF)

Residential Consumers	Commercial Consumers	Industrial Consumers	Electricity Generating Facilities	
				OPEN

[↑ Facility Overview](#)

¹A status of "Incomplete" means that one or more data elements that are inputs to one of this subpart's equations are incomplete. As a result, Cal e-GGRT is unable to perform the necessary calculation(s). For details, refer to the Equation Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not

Reporting – Subpart NN

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Cal e-GGRT Help

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95122 (Subpart NN): Suppliers of Natural Gas and Natural Gas Liquids
[Subpart Overview](#)

OVERVIEW OF SUBPART REPORTING REQUIREMENTS FOR INTERSTATE NATURAL GAS PIPELINES

Interstate NG Pipeline facilities are required to provide CARB with a list of their customers. Download and complete the Interstate Natural Gas Pipeline Customers spreadsheet below.

Subpart NN: View Validation

Supplier Type* Interstate natural gas pipelines CHANGE

1.) DOWNLOAD FORM


▶ [Interstate Natural Gas Pipeline Customers](#)

2.) UPLOAD COMPLETED SPREADSHEET

Browse...
UPLOAD

Reporting – Subpart PP

California Environmental Protection Agency
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 Cal e-GGRT
California Electronic Greenhouse Gas Reporting Tool

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HOME FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT Help

Using Cal e-GGRT for Subpart PP reporting

ARB Test Facility - TEST ONLY - Production Site (2011)

Section 95123 (Subpart PP): Suppliers of Carbon Dioxide

[Subpart Overview](#)

SELECT SUPPLIER CLASSIFICATION

As a supplier of carbon dioxide (CO₂), please select below the classification that describes your facility. This will enable Cal e-GGRT to tailor the subpart screens to properly include those reporting requirements germane to your facility.


* denotes a required field

SUPPLIER TYPE

<p>Please select the classification that describes your facility *</p>	<p><input type="radio"/> Capture Facility</p>	<p>A facility with production process units that capture a CO₂ stream for purposes of supplying CO₂ for commercial applications or that capture and maintain custody of a CO₂ stream in order to sequester or otherwise inject it underground. Capture refers to the initial separation and removal of CO₂ from a manufacturing process or any other process.</p>
	<p><input type="radio"/> Extract Facility</p>	<p>A facility with CO₂ production wells that extract or produce a CO₂ stream for purposes of supplying CO₂ for commercial applications or that extract and maintain custody of a CO₂ stream in order to sequester or otherwise inject it underground.</p>
	<p><input type="radio"/> Importers or Exporters</p>	<p>An importer or exporter of CO₂ (into or from California) that is not also a Capture Facility or Extract Facility.</p>

Reporting Subpart PP

California Environmental Protection Agency
Air Resources Board



California Electronic Greenhouse Gas Reporting Tool

HOME

FACILITY MANAGEMENT

DATA REPORTING

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Cal e-GGRT Help

Using Cal e-GGRT for Subpart PP reporting

ARB Test Facility - TEST ONLY - Production Site (2011)

Section 95123 (Subpart PP): Suppliers of Carbon Dioxide

Subpart Overview

SELECT CALCULATION METHODOLOGY

As a supplier of CO₂, please select below the classification that describes your facility. This will enable Cal e-GGRT to tailor the subpart screens to properly include those reporting requirements germane to your facility. * denotes a required field

CALCULATION METHODOLOGY

<p>Please select the calculation methodology you will use to estimate quantities of CO₂ *</p>	<p><input type="radio"/> Flow Meters with no segregation</p>	<p>Use equation PP-1 or PP-2 for each meter (Cal e-GGRT aggregating at the facility level using equation PP-3a.)</p>
<p><input type="radio"/> Flow Meters with segregation</p>	<p><input type="radio"/> Streams that deliver CO₂ to containers</p>	<p>Use equation PP-1 or PP-2 for each meter (Cal e-GGRT aggregating at the facility level using equation PP-3b.)</p> <p>Use equation PP-1 or PP-2 for each stream (Cal e-GGRT aggregating at the facility level using equation PP-3a. CO₂ concentration measurement required.)</p>

CANCEL

NEXT →

Contact Us

Cal-eGGRT RY2011.R.54 | PP-method

Reporting - Subpart PP


ARB Test Facility - TEST ONLY - Production Site (2011)

Section 95123 (Subpart PP): Suppliers of Carbon Dioxide

[Subpart Overview](#)

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

This subpart consists of facilities with production process units that capture a CO₂ stream for purposes of supplying CO₂ for commercial applications or that capture and maintain custody of a CO₂ stream in order to sequester or otherwise inject it underground, facilities with CO₂ production wells that extract or produce a CO₂ stream for purposes of supplying CO₂ for commercial applications or that extract and maintain custody of a CO₂ stream in order to sequester or otherwise inject it underground and importers or exporters of bulk CO₂.



(Eq. PP-3a) Annual mass of CO₂ (metric tons), sum for all facility Flow Meters

[VIEW SUMMARY](#)



Subpart PP: View Validation

Supplier Type: Capture [CHANGE](#)

Calculation Methodology: Flow Meters with no segregation

MISCELLANEOUS INFORMATION

Total Annual CO ₂ Transferred to End-Use Applications (metric tons)	Types of Equipment Used to Measure CO ₂
0	

[OPEN](#)

FLOW METERS

Flow Meter Name/ID	CO ₂ (metric tons)	Status ¹	Delete
--------------------	-------------------------------	---------------------	--------

[+ ADD a Flow Meter](#)

[← Facility Overview](#)

Reporting Subpart PP

California Environmental Protection Agency
Air Resources Board

HOME FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT
California Electronic Greenhouse Gas Reporting Tool

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Cal e-GGRT Help
Using Cal e-GGRT for Subpart PP reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95123 (Subpart PP): Suppliers of Carbon Dioxide
Subpart Overview » **Miscellaneous Information**

MISCELLANEOUS INFORMATION FOR SUPPLIERS OF CARBON DIOXIDE

- Each type of equipment used to measure the total flow of the CO₂ stream
- The number of days for which substitute data procedures were used to determine the mass or volume, concentration and density
- The annual quantity of CO₂ transferred to one or more end use application

TYPES OF EQUIPMENT USED TO MEASURE THE TOTAL FLOW OF THE CO₂ STREAM

Id	Equipment Type	Delete
+ ADD a Type of Equipment		

Please provide the aggregated annual quantity of CO₂ your facility transferred to each of the following end-use categories (enter zero if none):

Food and beverage	<input type="text"/>	(metric tons)
Industrial and municipal water/wastewater treatment	<input type="text"/>	(metric tons)
Metal fabrication, including welding and cutting	<input type="text"/>	(metric tons)

Reporting - Subpart PP

Cleaning and solvent use	<input type="text"/>	(metric tons)
Fire fighting	<input type="text"/>	(metric tons)
Transportation and storage of explosives	<input type="text"/>	(metric tons)
Enhanced oil and natural gas recovery	<input type="text"/>	(metric tons)
Long-term storage (sequestration) within California	<input type="text"/>	(metric tons)
Research and Development	<input type="text"/>	(metric tons)
Other/unknown	<input type="text"/>	(metric tons)

Please provide the aggregated annual quantity of CO₂ your facility imported into California and exported out of California:

CO ₂ imported into California	<input type="text"/>	(metric tons)
CO ₂ exported from California for purposes other than geologic sequestration	<input type="text"/>	(metric tons)
CO ₂ exported from California for the purpose of geologic sequestration	<input type="text"/>	(metric tons)

Please provide the number of days for which substitute data procedures were used to measure the the following:

CO ₂ mass or volume	<input type="text"/>	(days)
CO ₂ concentration	<input type="text"/>	(days)
CO ₂ stream density	<input type="text"/>	(days)



Data Validation


Reporting: Validation Messages

- Tool provides data validation
- Most messages must be cleared before report submittal
- Clicking on message brings you to where the issue occurred

ARB Test Facility - TEST ONLY - Production Site (2011)
95115, 95112 (Subpart C) - Stationary Fuel Combustion
[Subpart Overview](#) » **Validation Report**

SUBPART C VALIDATION REPORT

This report contains a complete set of validation messages for all data required by this Subpart. For additional information about Validation Reports, please use the Cal e-GGRT Help link(s) provided.

[Print-friendly version](#) 

FACILITY-LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Message ³
No facility level validation messages.		

CONFIGURATION-LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Unit Name	Message ³
Data Completeness	C125	PG Single Unit	Annual carbon dioxide emissions from combustion of all biomass fuels combined (if any of the units burn fossil AND biomass). This data element is required.
Data Completeness	C128	PG Single Unit	Annual carbon dioxide emissions from sorbent. This data element is required.

FUEL-LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Unit Name	Fuel Name	Message ³
Data Completeness	C146	PG Single Unit	Natural Gas (Weighted U.S. Average)	Annual carbon dioxide emissions from combustion of the specified fuel. This data element is required.

[← Subpart Overview](#)

¹ Validation Types: Cal e-GGRT generates a variety of validation types, defined below:

- Data Completeness: data required for reporting is missing or incomplete.
- Data Quality: data is outside of the range of expected values. The value you have provided is outside the ARB estimated range for this data element. Please double check this value and revise, if necessary. If you believe it to be correct, please submit the value as is.
- Screen Error: a data value or combination of data values prevents Cal e-GGRT from continuing to the next page. Typically, this will not appear on the Validation Report, but instead will be displayed on the data entry page at the time the error was created.

Key Reporting Dates

- See **Key Dates** web page for specific dates applicable to reporting year
- <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-dates.htm>
- Actual Reporting Dates may differ from dates specified in the regulation if the specified dates fall on a Saturday, Sunday, or Holiday
- **Key Dates** page is updated annually with required submission dates

For More Information

- GHG Reporting Website
 - <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>
- See website for:
 - Regulation reporting guidance and fact sheets
 - Reporting tool information
 - “Clean” copy of the regulation (no underline/strikeout)
 - Sector specialist contacts
- Email reporting tool questions to:
ghgreport@arb.ca.gov

GHG Reporting Contacts

Subject Matter	Contact
GHG Mandatory Reporting (General)	Dave Edwards , Manager 916.323.4887
Reporting Requirements, Stationary Combustion, Other Sectors (cement, glass, pulp and paper, etc.)	Patrick Gaffney 916.322.7303
Reporting Tool Registration and General Questions	Karen Lutter 916.322.8620
Electricity Generation and Cogeneration Facilities	Anny Huang 916.323.8475
Electricity Retail Providers and Electricity Marketers	Wade McCartney 916.327.0822
Fuel and CO2 Suppliers - Transportation Fuels, Natural Gas, LPG, CO2	Byard Mosher 916.323.1185
Petroleum Refineries, Hydrogen Plants, Oil & Gas Production	Byard Mosher 916.323.1185
Greenhouse Gas Report Verification	Renee Lawver , Manager 916.322.7062
Chief – Greenhouse Gas Emission Inventory Branch	Richard Bode , Chief 916.323-8413