California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

GHG Abbreviated Reporting

Regulatory Requirements, Registration, and Use of Cal e-GGRT System

CALIFORNIA AIR RESOURCES BOARD

Revised January 16, 2019

Presentation slides available here: https://ww2.arb.ca.gov/mrr-tool

Outline

- Abbreviated reporting requirements
- New user registration and account creation in Cal e-GGRT reporting system
- Using Cal e-GGRT for abbreviated greenhouse gas reporting
- Key reporting dates and other resources
- Questions and Answers

Abbreviated Reporter Applicability

- Reportable greenhouse gas emissions must be less than 25,000 metric tons CO_2e (carbon dioxide equivalent) and greater than or equal to 10,000 MT CO_2e
- AND
  - Not a Fuel Supplier or Electric Power Entity
  - Not subject to cap-and-trade program (i.e., not an opt-in facility or due to historical emissions)
  - Not subject to U.S. EPA reporting for sectors included in CARB regulation
- See Section 95103(a) of regulation

Reporting Requirements

- Facility identification information
- Emissions data
- Fuel consumption
- Methods and data used for estimates (as applicable)
- Additional data for electricity generation and cogeneration (§95103(a)(6))

Abbreviated “Reportable Emissions”

- Must report all specified fossil fuel and biomass combustion CO_2, CH_4, and N_2O emissions
- Reportable emissions include stationary combustions emissions, as well as process emissions (e.g., from glass production, hydrogen production, iron & steel production, pulp & paper production, nitric acid production)

What Makes Reporting "Abbreviated?"

- Abbreviated reporters may use less stringent emission estimation methods
  - Default emission factors, Tier 1
  - Most will use utility bills for fuel use data
- Not subject to measurement accuracy requirements of §95103(k) or unit aggregation in §95115(h)
- GHG monitoring plan not required
- Not subject to third party verification
- More time to report - Reports due June 1st* (vs. April 10th for full reporting)

** Note: If the reporting deadline falls on a weekend or holiday, the deadline is pushed back to the next business day. So for 2018 data reported in 2019, because June 1st is a Saturday, the report is due June 3, 2019.*

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Additional Info

- If future emissions exceed 25,000 metric tons
  - Full reporting and meter accuracy requirements apply for entire year
  - Verification required
- Cessation = emissions are less than 10,000 metric tons CO_2e for three consecutive years
  - May discontinue reporting after the three-year period
  - Must notify CARB to cease reporting [§95101(h)(2)(E)]
  - See §95101(h)(2) for details
- Shutdown
  - Must report zero emissions for 1 year
  - Notify CARB [§95101(i)(1)]
  - See §95101(i) for details

How to Report

Reporting is performed using the California Electronic Greenhouse Gas Reporting Tool

Cal e-GGRT

pronounced: Cal-Egret (like the bird)

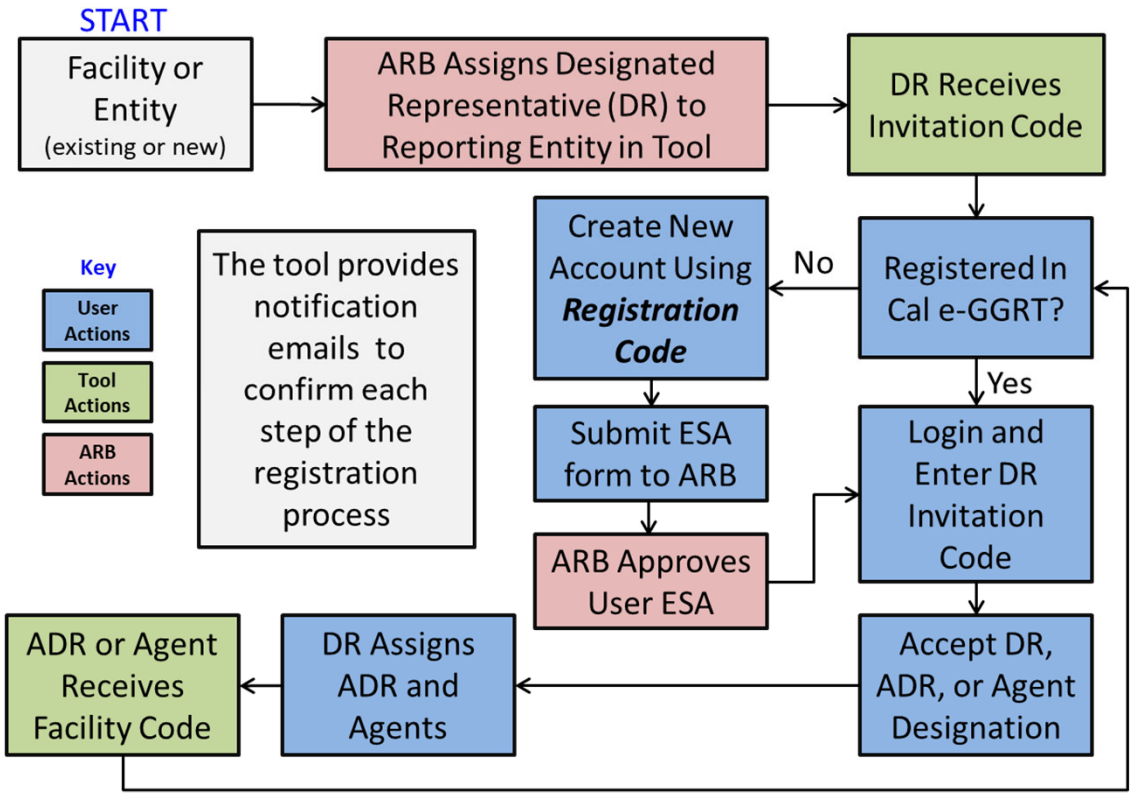
What is Cal e-GGRT?

- Cal e-GGRT is used to report all data required by the GHG mandatory reporting regulation
- The tool contains modules for each sector required to report
- Cal e-GGRT calculates emissions based on entered fuel consumption values
- Multiple users can be associated with a single facility or entity

Registering in Cal e-GGRT

- Create Individual User Account
  - Applies to ALL users that do not have an account
  - Registration code needed
  - Initially, not associated with facility
- ARB Creates Facility Account
  - Cal e-GGRT sends Designated Representative (DR) Invitation Code to primary facility contact
  - Invitation Codes generated by the tool are used to associate users with facilities
- DR may add an Alternate DR and Agents to facility account

User Registration and DR Acceptance

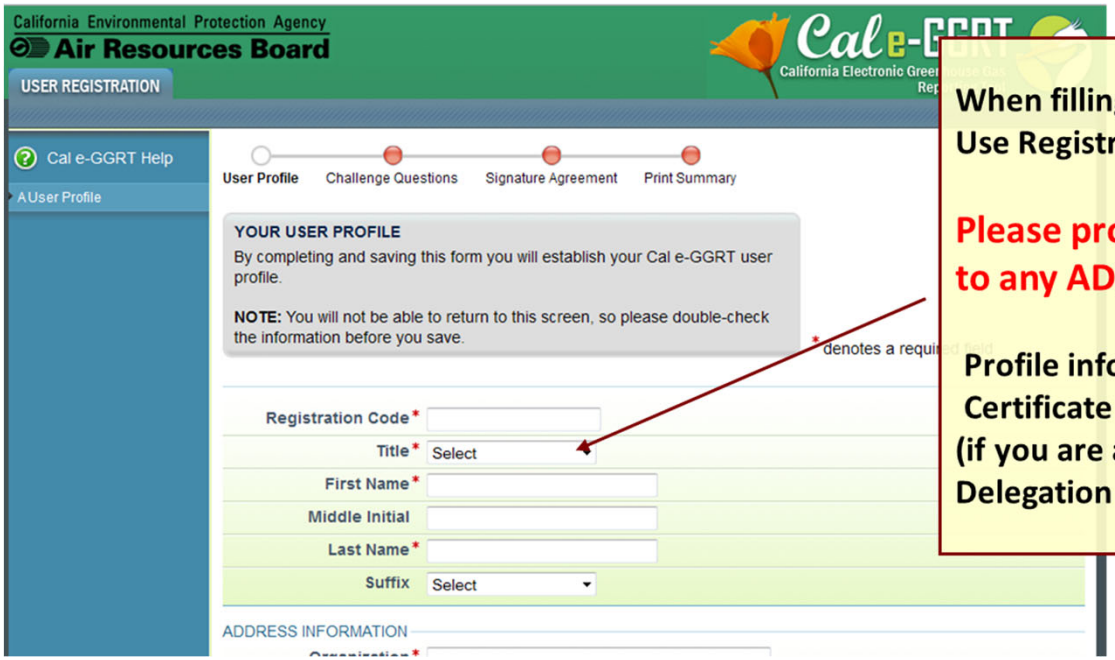


User Registration: Login Page

https://ww2.arb.ca.gov/index.php/mrr-tool

User Registration: Account Setup

- Accept Cal e-GGRT Terms and Conditions
- Create User Profile



When filling out your profile:
Use Registration Code

Please provide Registration Code to any ADRs or AGENTS you assign

Profile information will be used on the Certificate of Representation (if you are a DR or ADR) or Notice of Delegation (if you are an Agent)

User Registration: Electronic Signature and Use Agreement (ESA)

- **Original ESA must be physically mailed to CARB**
  - Must sign and date form
- To speed processing
  - Email scanned copy to: ghgreport@arb.ca.gov
- ARB approves ESAs for all user accounts
- User cannot accept Designated Representative or other invitations until ESA approved
- Users do not have access to facility account until ESA approved

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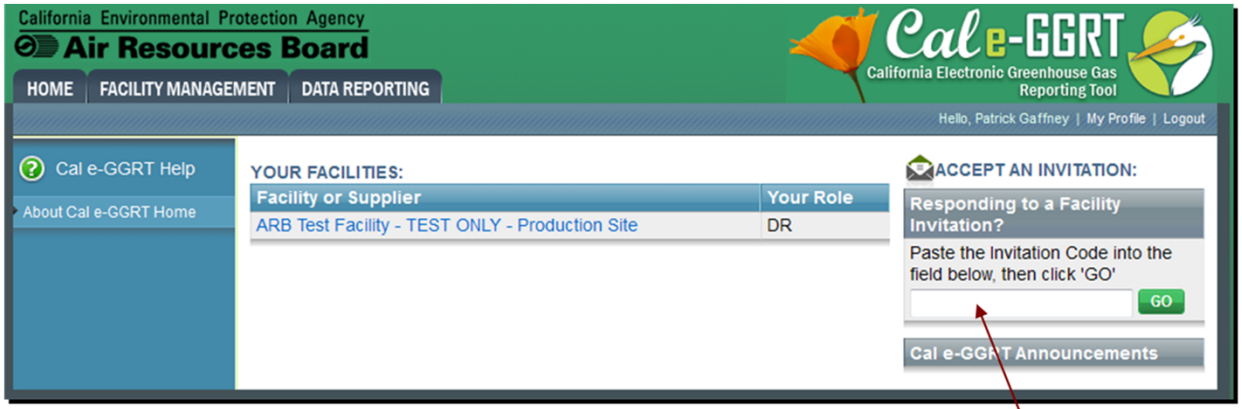
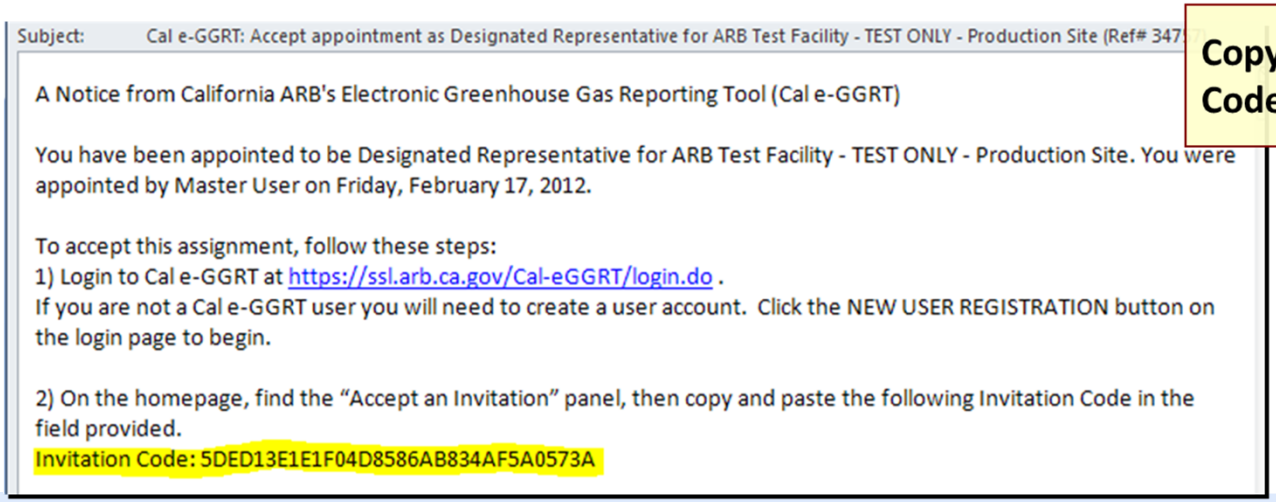
User Registration: Accept Designated Representative Invitation





Copy/Paste Invitation Code here

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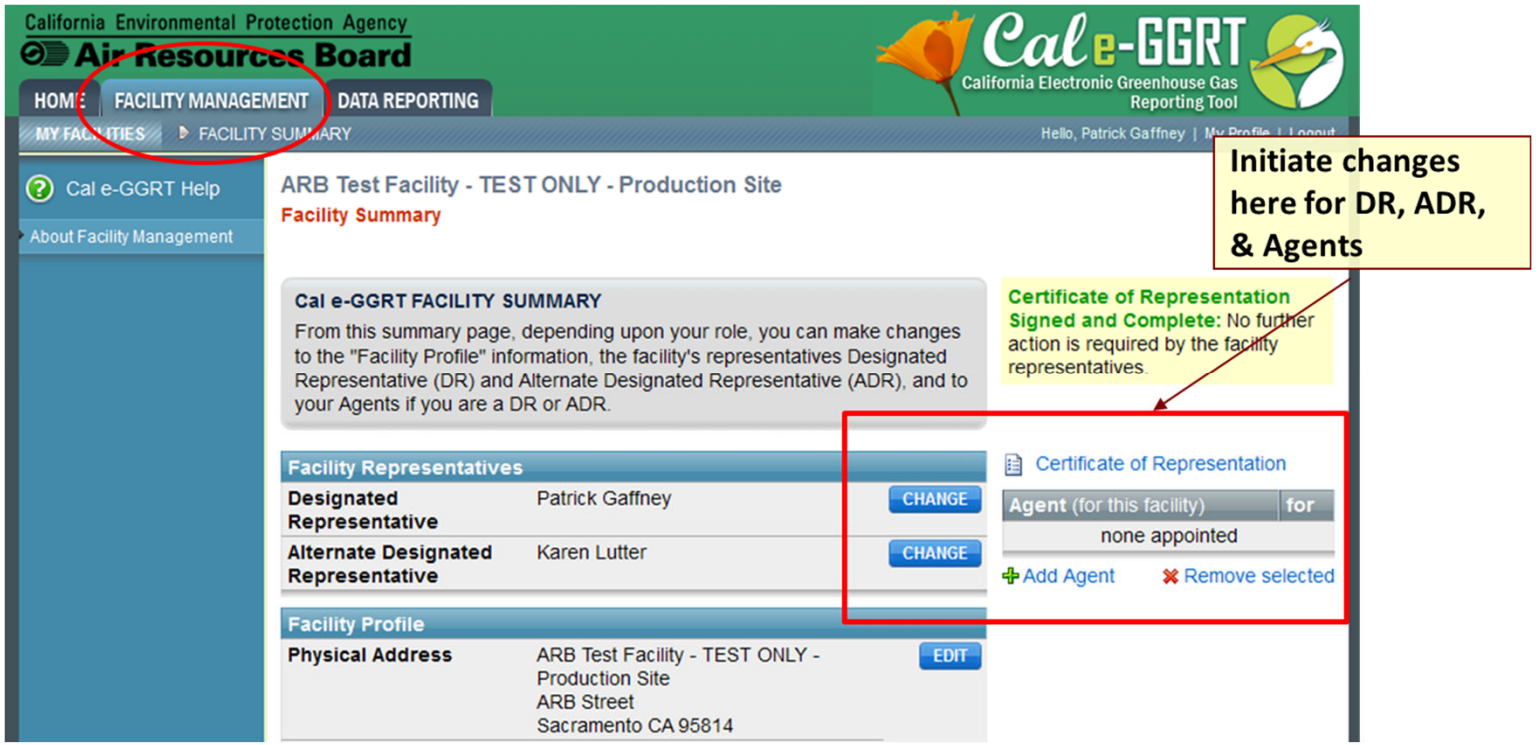
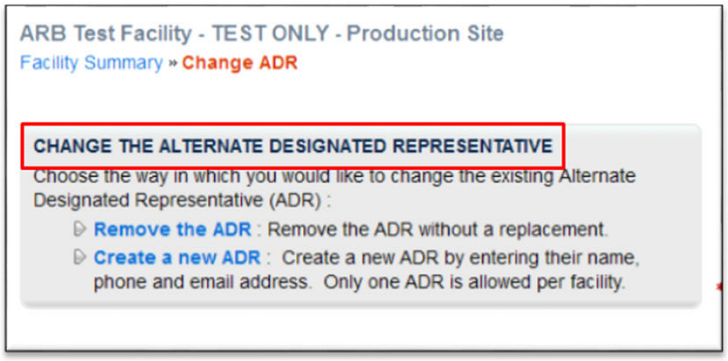
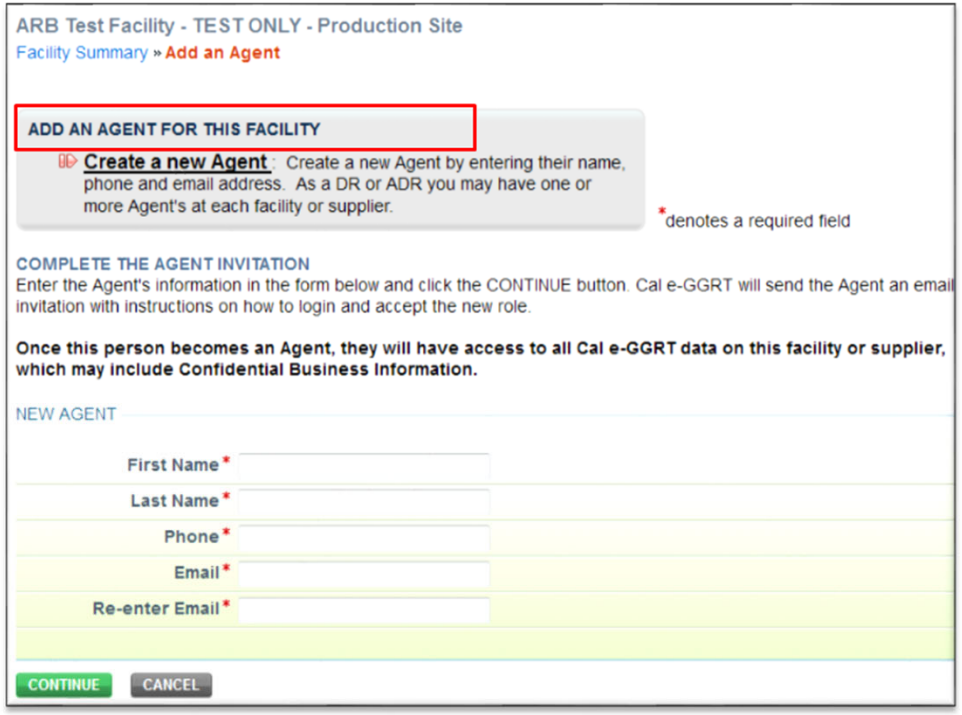
User Registration: Adding ADR and Agents

- Facility Management tab
- Use CHANGE or Add Agent buttons



User Registration: ADRs and Agents





Overview of Cal e-GGRT Operation

- Facility profile information
- Adding subparts for reporting
- Entering emissions data
- Validation messages

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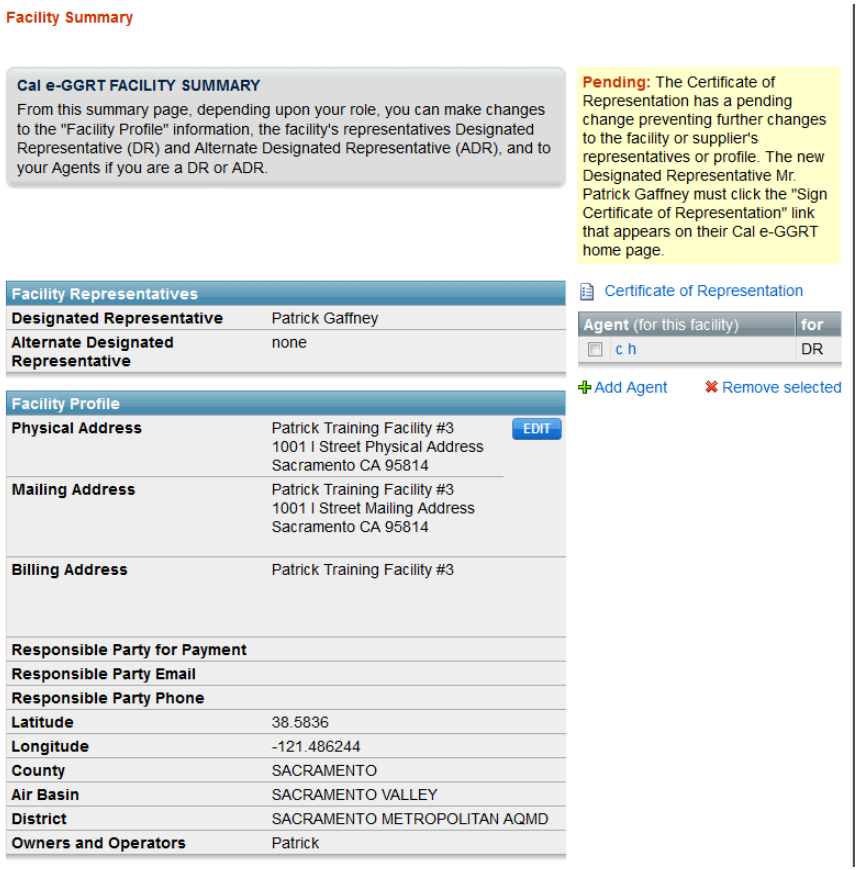
Facility Profile Information

- Accessed via FACILITY MANAGEMENT tab
- Completed by DR during initial account acceptance



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.

Pending: The Certificate of Representation has a pending change preventing further changes to the facility or supplier's representatives or profile. The new Designated Representative Mr. Patrick Gaffney must click the "Sign Certificate of Representation" link that appears on their Cal e-GGRT home page.

Certificate of Representation

Facility Representatives	
Designated Representative	Patrick Gaffney
Alternate Designated Representative	none

Agent (for this facility)	for
c h	DR

Add Agent Remove selected

Facility Profile		
Physical Address	Patrick Training Facility #3 1001 I Street Physical Address Sacramento CA 95814	EDIT
Mailing Address	Patrick Training Facility #3 1001 I Street Mailing Address Sacramento CA 95814	
Billing Address	Patrick Training Facility #3	
Responsible Party for Payment		
Responsible Party Email		
Responsible Party Phone		
Latitude	38.5836	
Longitude	-121.486244	
County	SACRAMENTO	
Air Basin	SACRAMENTO VALLEY	
District	SACRAMENTO METROPOLITAN AQMD	
Owners and Operators	Patrick	

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Data Reporting

- Use DATA REPORTING tab to report emissions and other data

Subpart A – General Information

- All reporters complete Subpart A
- Some items in Subpart A not directly applicable to Abbreviated Reporters
- Complete Subpart A to clear all Validation Messages
- Cannot generate final report with pending validation messages

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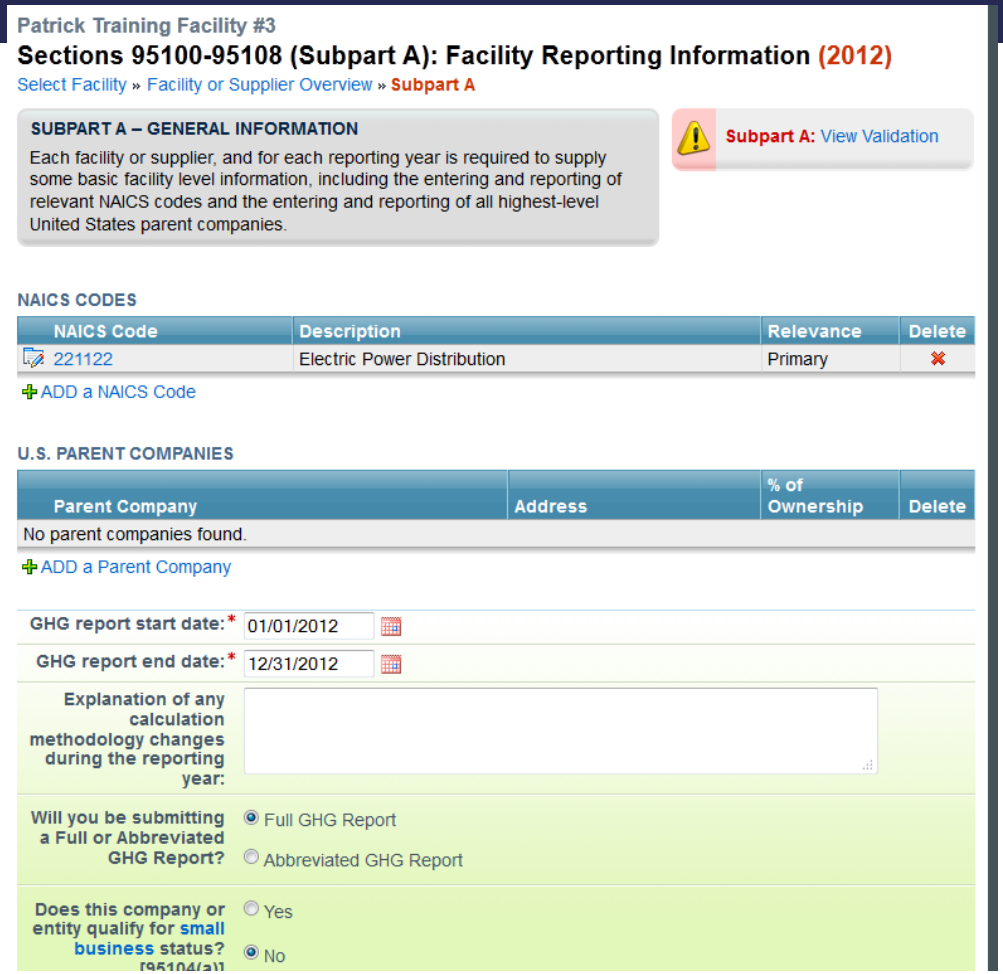
Subpart A – Data Entry

- Required fields must be completed
- Validation messages triggered if incomplete



Subpart A – Validation Messages

- All validation must be cleared before report generation allowed
- All reporters provide electricity and natural gas purchased

FACILITY-LEVEL VALIDATION MESSAGES

Validation Type[1]	ID[2]	Message[3]
Data Completeness	A624	You have not entered any natural gas purchases. At least one row must be entered into the Natural Gas Purchases section. If your facility did not purchase any natural gas, then select "Facility does not consume NG" as the natural gas provider name.

CORPORATE PARENT VALIDATION MESSAGES

Validation Type[1]	ID[2]	Corporate Parent Name	Message[3]
Data Completeness	A510		Please identify the highest-level United States parent company as of December 31 of the current reporting year. This data is required.

NAICS CODE VALIDATION MESSAGES

Validation Type[1]	ID[2]	NAICS Code	Message[3]
No NAICS code validation messages found.			

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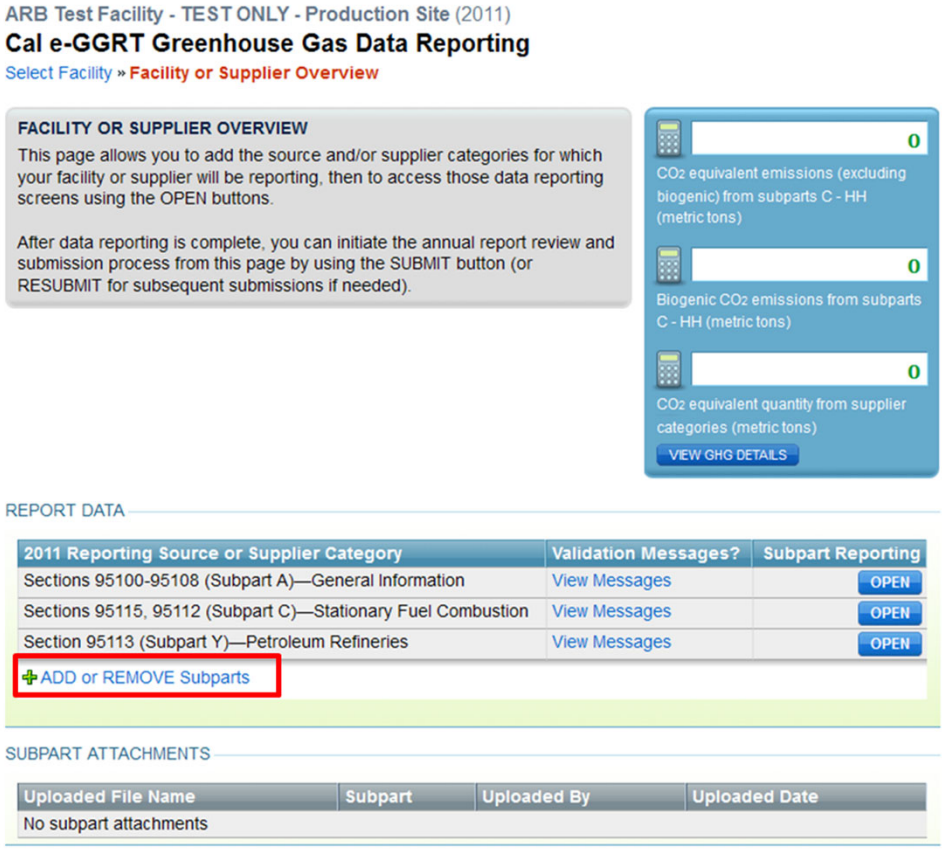
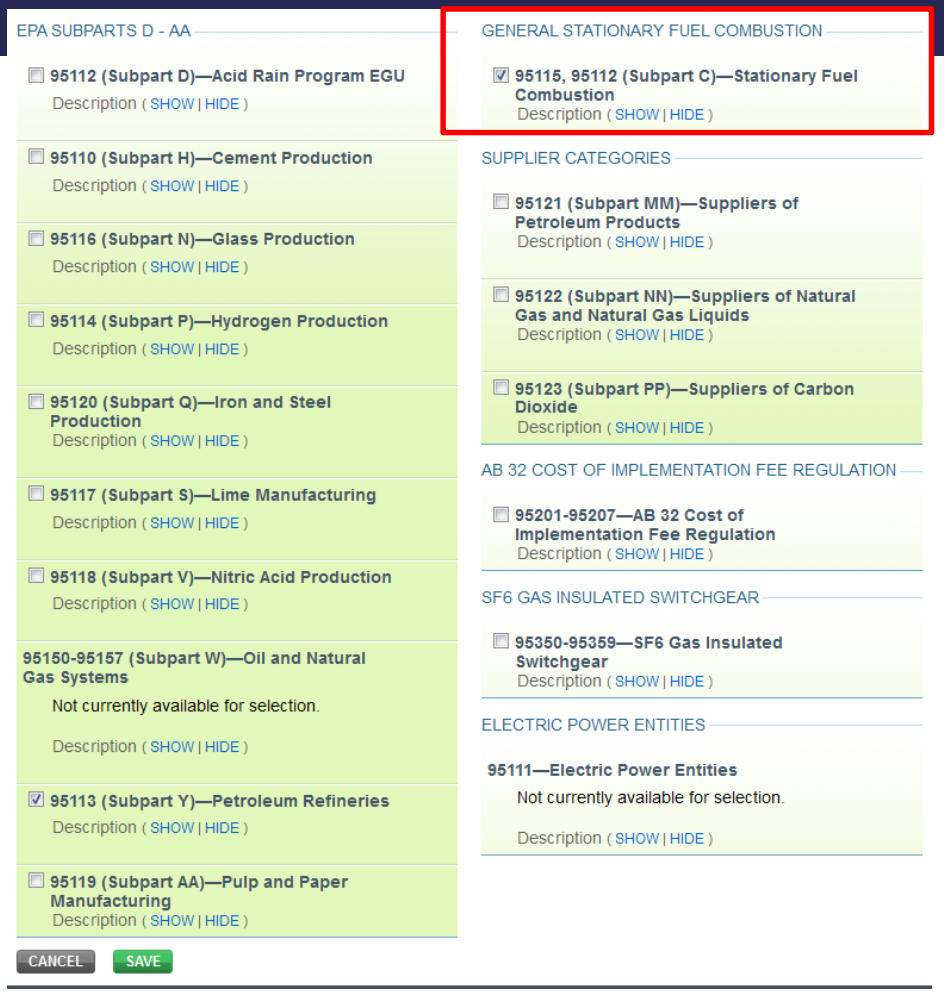
Reporting: Adding Subparts

- Add or remove subparts as applicable to reporting entity
- OPEN subpart to complete data entry for each subpart



Reporting: Adding Subparts

- Select applicable subparts
- Most Abbreviated Reporters will only use Subparts A and C
  - "A" for general info
  - "C" for stationary combustion



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Subpart C Reporting
Stationary Fuel Combustion

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Adding a Subpart C Configuration

Two Step Process

1. Configuration Setup
   - Created once for each configuration
   - Varies by configuration type
2. Fuel Use and Emissions per Configuration
   - Reported for each fuel type combusted in a given configuration
   - Data required varies by tier and fuel type

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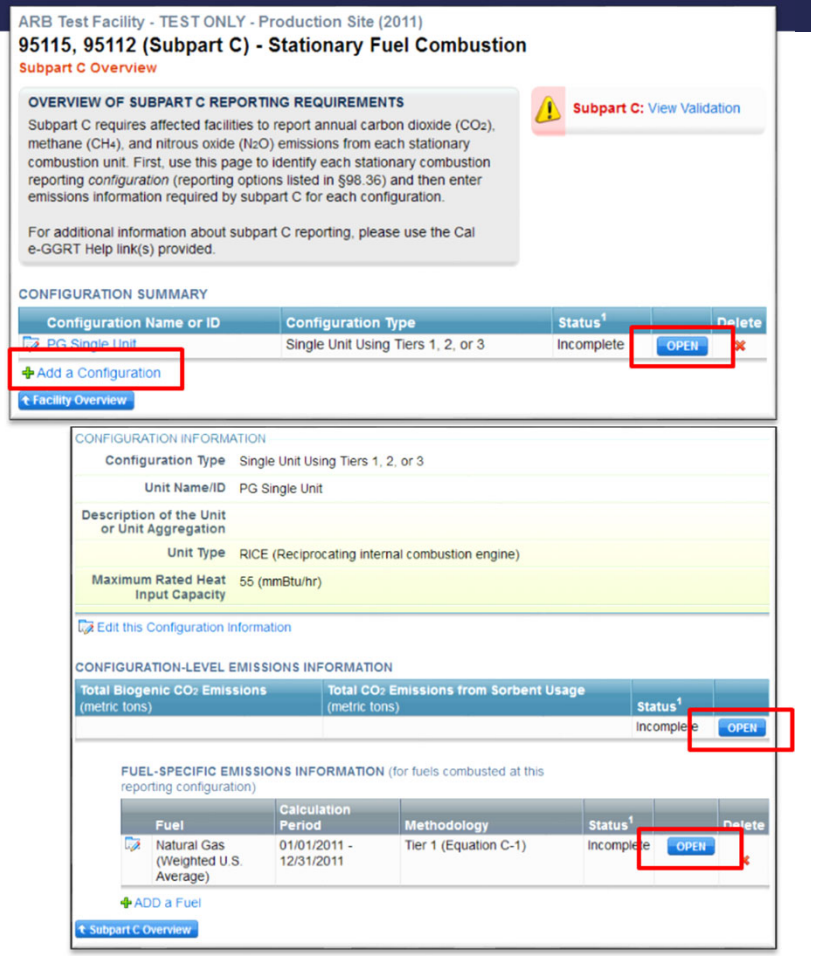
Reporting Stationary Combustion Emissions

- Add configurations to report units
- Then OPEN configurations and OPEN subordinate levels to report emissions and fuel data

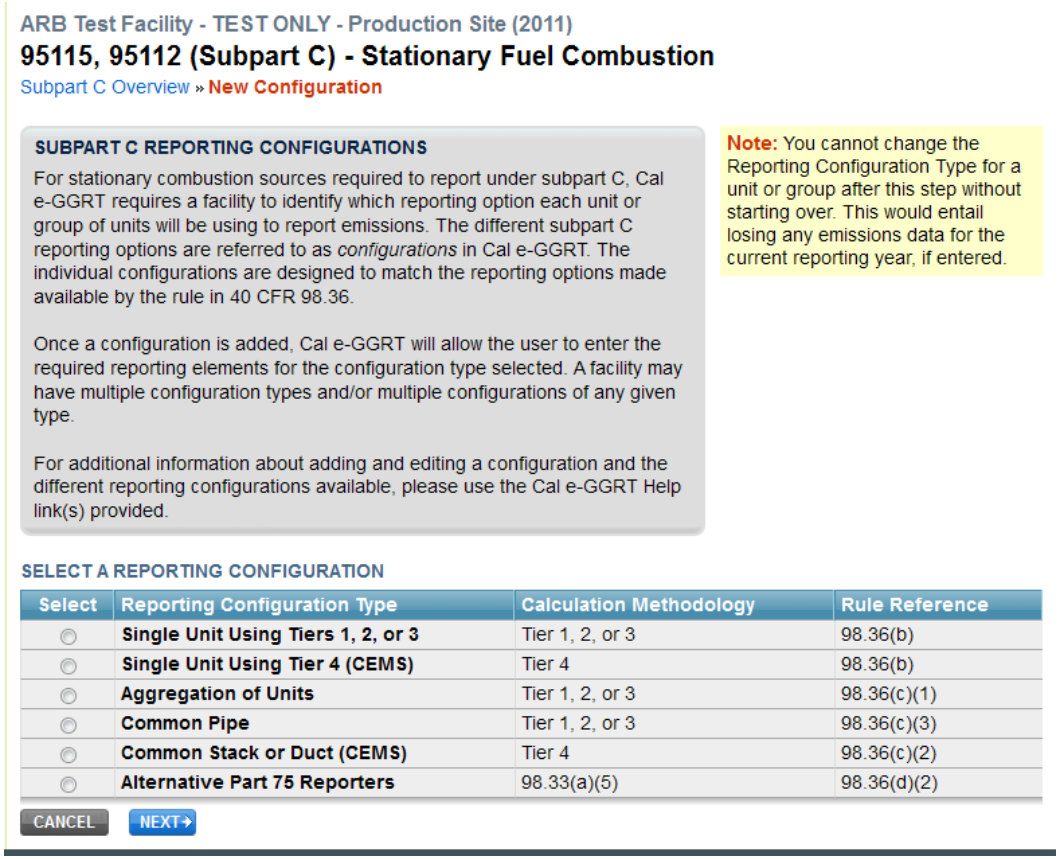


Subpart C Configurations

- Subpart C offers 6 different reporting options, known as **Configurations** in Cal e-GGRT
- Reporting options provided in 40 CFR 98.36(b)-(c)
- Abbreviated reporters will typically use those in ***blue**
  - *Single Unit Using Tiers 1, 2, or 3 [98.36(b)]
  - *Aggregation of Units [98.36(c)(1)]
  - *Common Pipe [98.36(c)(2)]
  - Single Unit Using Tier 4 (CEMS) [98.36(b)]
  - Common Stack or Duct (CEMS) [98.36(c)(3)]
  - Alternative Part 75 Reporters [98.36(d)(2)]

Adding a Configuration

- Select appropriate configuration
- Complete descriptive information that follows



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

95115, 95112 (Subpart C) - Stationary Fuel Combustion

Subpart C Overview » New Configuration

SUBPART C REPORTING CONFIGURATIONS

For stationary combustion sources required to report under subpart C, Cal e-GGRT requires a facility to identify which reporting option each unit or group of units will be using to report emissions. The different subpart C reporting options are referred to as *configurations* in Cal e-GGRT. The individual configurations are designed to match the reporting options made available by the rule in 40 CFR 98.36.

Once a configuration is added, Cal e-GGRT will allow the user to enter the required reporting elements for the configuration type selected. A facility may have multiple configuration types and/or multiple configurations of any given type.

For additional information about adding and editing a configuration and the different reporting configurations available, please use the Cal e-GGRT Help link(s) provided.

Note: You cannot change the Reporting Configuration Type for a unit or group after this step without starting over. This would entail losing any emissions data for the current reporting year, if entered.

SELECT A REPORTING CONFIGURATION

Select	Reporting Configuration Type	Calculation Methodology	Rule Reference
○	**Single Unit Using Tiers 1, 2, or 3**	Tier 1, 2, or 3	98.36(b)
○	**Single Unit Using Tier 4 (CEMS)**	Tier 4	98.36(b)
○	**Aggregation of Units**	Tier 1, 2, or 3	98.36(c)(1)
○	**Common Pipe**	Tier 1, 2, or 3	98.36(c)(3)
○	**Common Stack or Duct (CEMS)**	Tier 4	98.36(c)(2)
○	**Alternative Part 75 Reporters**	98.33(a)(5)	98.36(d)(2)

CANCEL NEXT→

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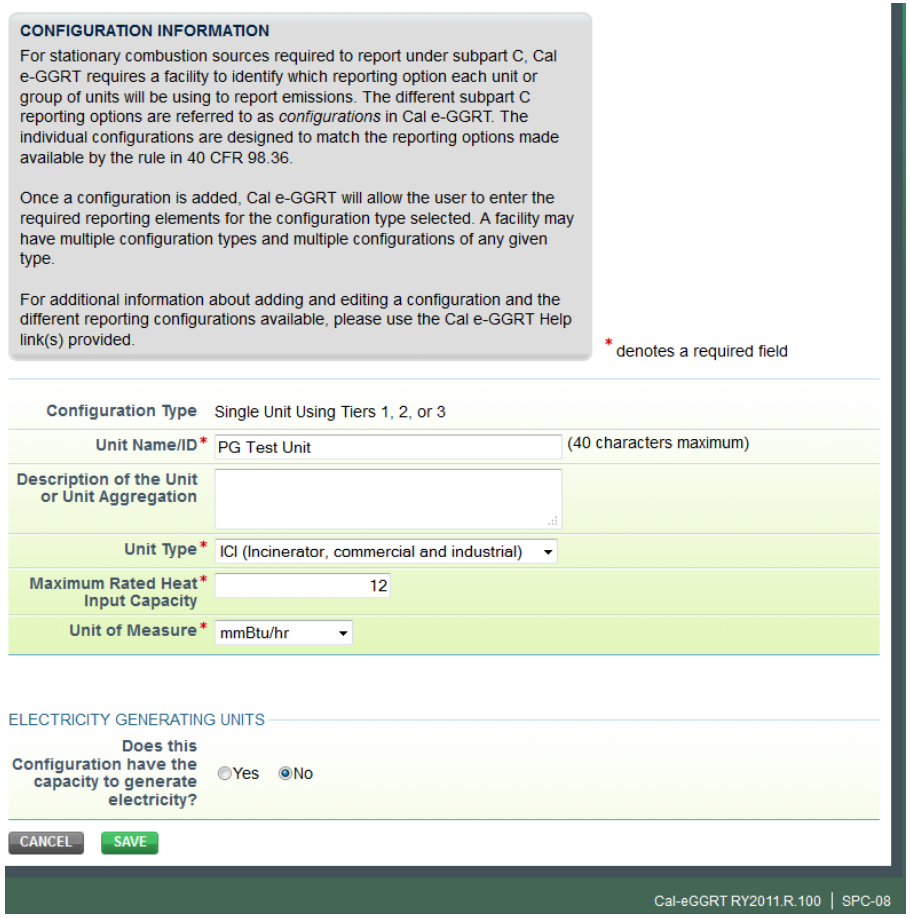
Configuration Information for Single Unit

- Select appropriate configuration type
- Provide setup information shown
- Electricity generation units require additional info when “Yes” selected



Entering Fuel and Emissions Data

- Open Unit Configuration
  - Click on “ADD a Fuel”
  - Select a fuel
  - Select a Tier
    - *Most abbreviated reporters will use Tier 1*
  - Add additional fuels as applicable
- Open Fuel Information
  - Select calculation method
  - Enter fuel use data
  - Enter HHV and other data as applicable (Tiers 2 or 3)
  - Tool calculates emissions based on fuel use entered

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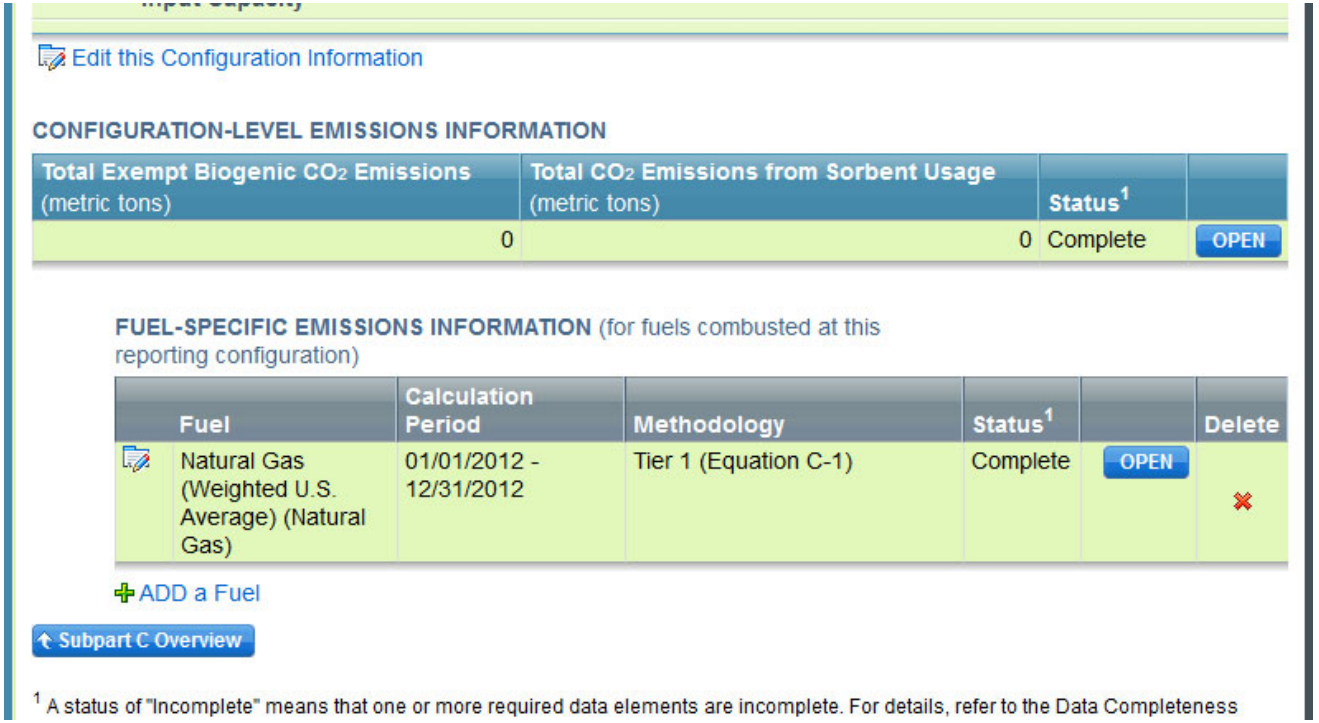
Add a Fuel

- Click on button to add fuels for configuration
- Also, complete CONFIGURATION-LEVEL data



Edit this Configuration Information

CONFIGURATION-LEVEL EMISSIONS INFORMATION

Total Exempt Biogenic CO_2 Emissions (metric tons)	Total CO_2 Emissions from Sorbent Usage (metric tons)	Status[1]	
0	0	Complete	OPEN

FUEL-SPECIFIC EMISSIONS INFORMATION (for fuels combusted at this reporting configuration)

	Fuel	Calculation Period	Methodology	Status[1]		Delete
	Natural Gas (Weighted U.S. Average) (Natural Gas)	01/01/2012 - 12/31/2012	Tier 1 (Equation C-1)	Complete	OPEN	

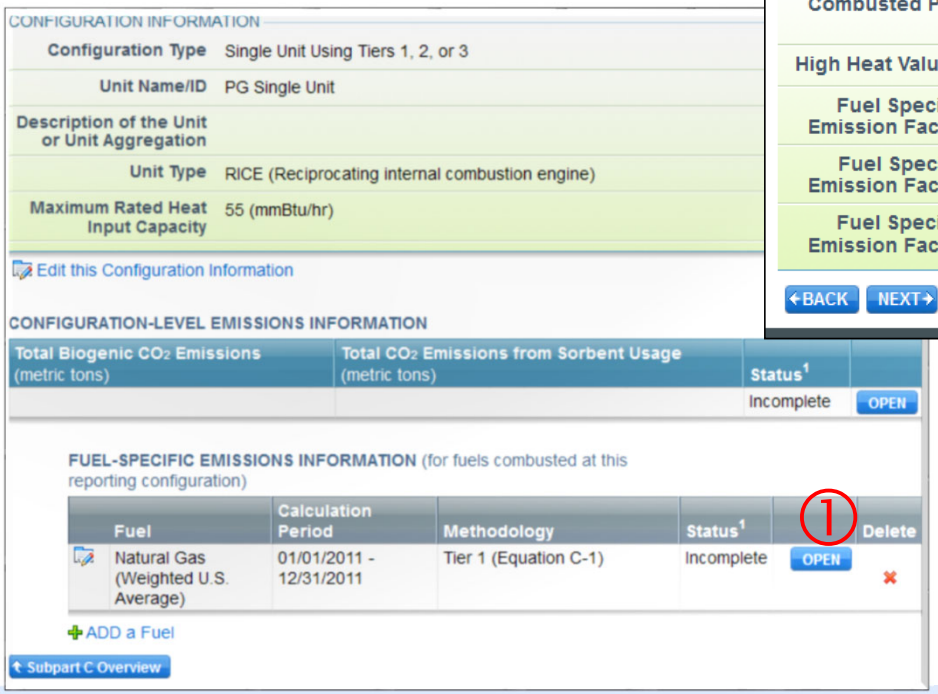
ADD a Fuel

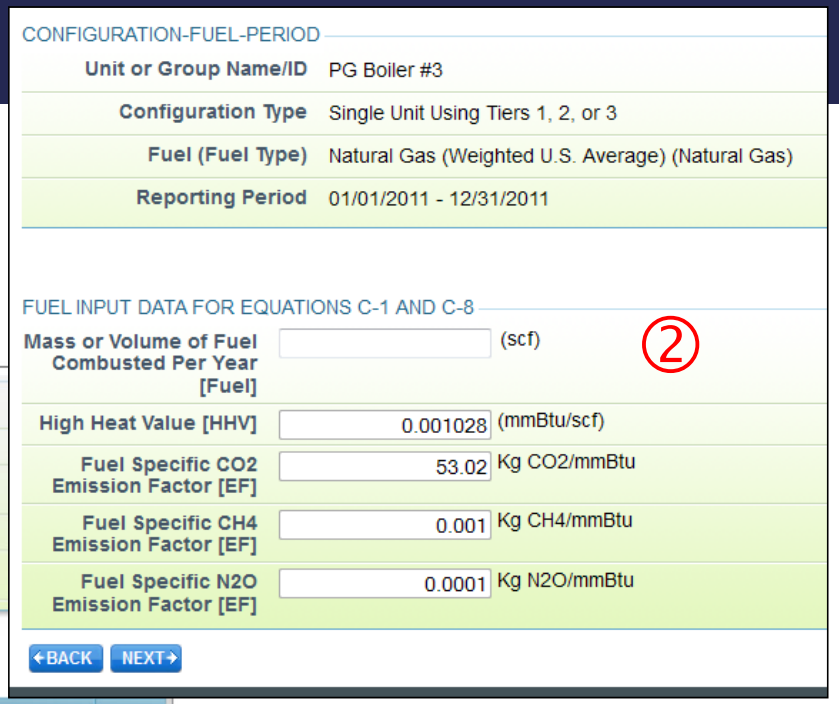
Subpart C Overview

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

Entering Fuel Information

- Open fuel ①
- Enter required data ②





Check Results

- Emissions calculated by tool using fuel and EFs
- Confirm entered or calculated results
- Can be overridden, but generally not needed

CONFIGURATION-FUEL-PERIOD

Unit or Group Name/ID	PG Boiler #3
Configuration Type	Single Unit Using Tiers 1, 2, or 3
Fuel (Fuel Type)	Natural Gas (Weighted U.S. Average) (Natural Gas)
Reporting Period	01/01/2011 - 12/31/2011

EQUATION C-1 SUMMARY AND RESULT

Equation C-1 $CO_2 = 1x10^{-3} \times Fuel \times HHV \times EF$

Hover over an element in the equation above to reveal a definition of that element.

Emission Type	Fuel (scf)	HHV (mmBtu/scf)	EF	Calculated Result (metric tons)
CO_2	500,000,000	0.001028	53.02	27,252

What CO_2 result do you want to report to CARB?
- (•) Use the calculated result rounded
- ( ) Enter my own result (value will be rounded)

EQUATION C-8 SUMMARY AND RESULTS

Equation C-8 CH_4 or $N_2O = 1x10^{-3} \times Fuel \times HHV \times EF$

Hover over an element in the equation above to reveal a definition of that element.

Emission Type	Fuel (scf)	HHV (mmBtu/scf)	EF	Calculated Result (metric tons)	Metric Tons of CO_2e
CH_4	500,000,000	0.001028	0.001	1	11
N_2O	500,000,000	0.001028	0.0001	0	16

What CH_4 result do you want to report to CARB?
- (•) Use the calculated result rounded
- ( ) Enter my own result (value will be rounded)

What N_2O result do you want to report to CARB?
- (•) Use the calculated result rounded
- ( ) Enter my own result (value will be rounded)

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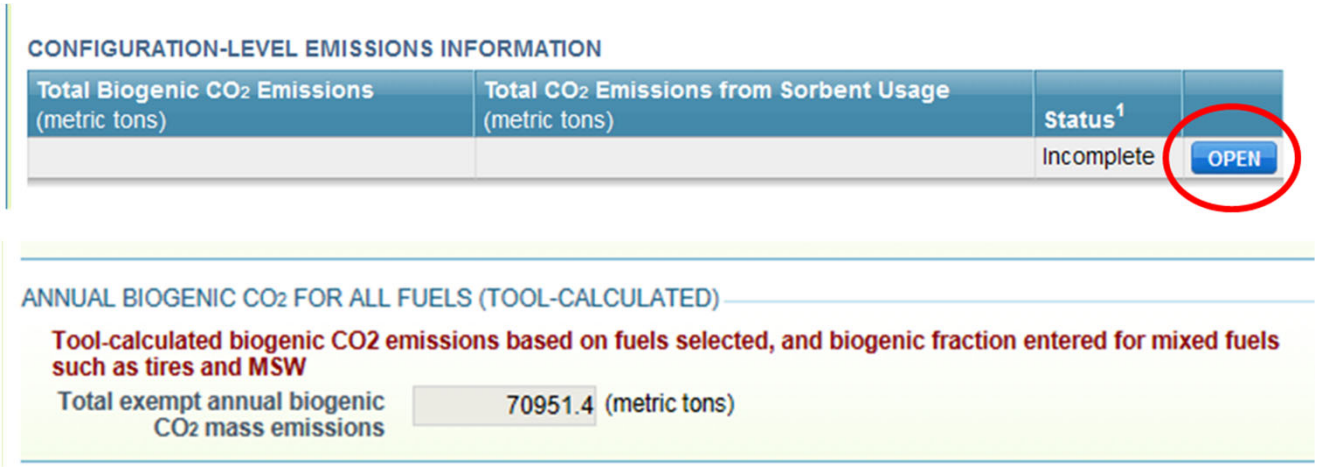
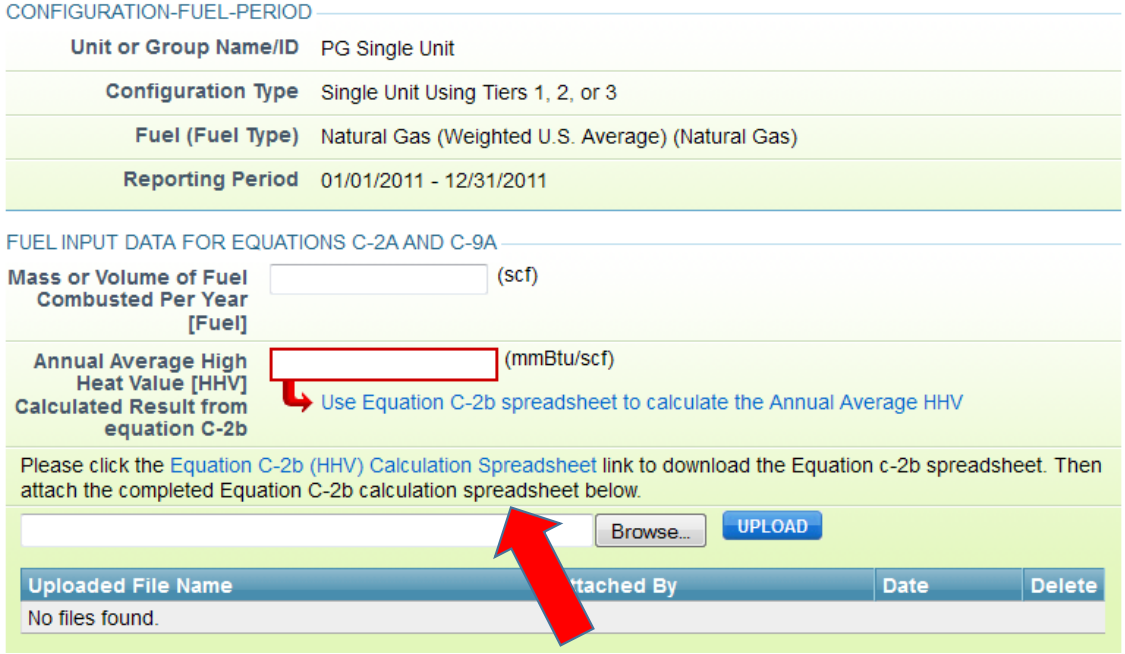
Biogenic Emissions

- Beginning in 2018, Cal e-GGRT calculates biogenic CO_2 based on fuels selected and biogenic fraction entered for mixed fuels, such as tires and MSW



Uploading Supporting Data

- If using Tier 2 or Tier 3 methods:
  - Generally not for abbreviated reporters
  - CARB requires reporting of additional information
  - Complete and upload required spreadsheets available in tool



Data Validation and Report Submittal

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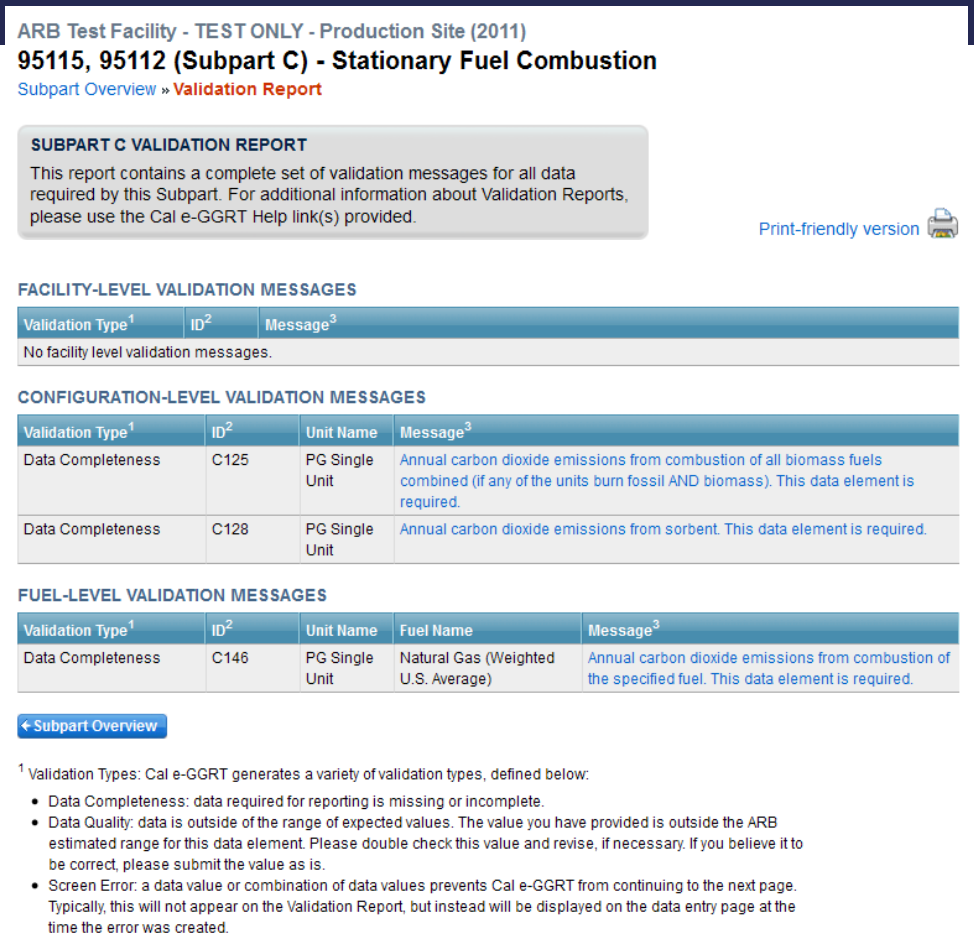
Data Validation

- 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.

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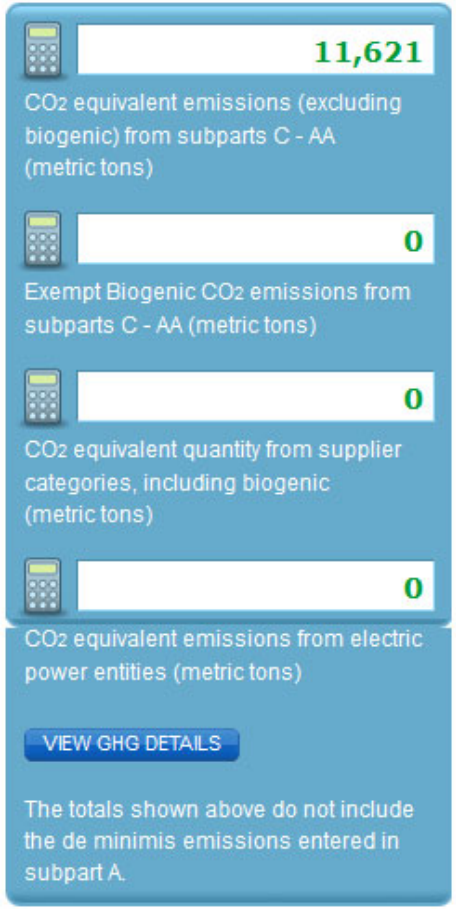
Emission Roll-ups

- Cal e-GGRT calculates emissions totals for each subpart and aggregates subpart totals into facility or supplier totals
- Annual emissions calculated from each applicable subpart, for each of the following GHGs (in metric tons of each gas)
  - CO_2 (excluding biogenic CO_2)
  - Biogenic CO_2
  - CH_4 (and CH_4 converted to CO_2e)
  - N_2O (and N_2O converted to CO_2e)
- The subpart totals are rolled-up into the following facility totals:
  - Total CO_2e for all sources and all GHGs (includes N_2O and CH_4) except of biogenic CO_2
  - Biogenic CO_2 from all sources
  - Emissions for fuel supplier categories
  - Emissions for Electric Power Entities



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Emissions Checks Before Submitting Reports

- Reality-check data
- Review overall magnitude of emissions
  - Do totals look okay?
- Make sure fuel units (mmBtu, Therms, scf, etc.) are correct for method selected
- Generate full report and check inputs and other data

Generating Report

- After ALL critical validation messages are cleared, GENERATE/SUBMIT button activates
- Generate report and review inputs and data

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
Copy of De Minimis Emissions.xls	A	Katrina Luther	October 2, 2012
Equation C-2b (CC) Calculation Spreadsheet.xls	C	Katrina Luther	December 26, 2012

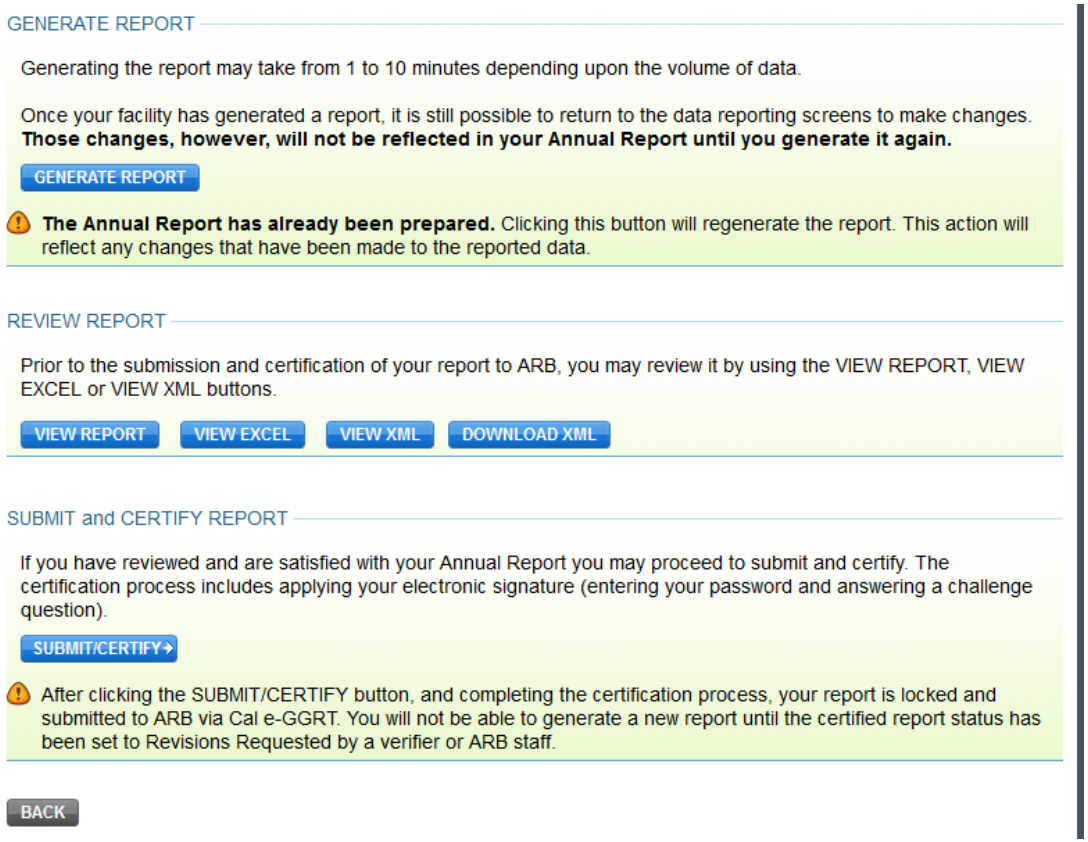
SUBMIT ANNUAL REPORT

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	
2011 Annual Report v1		Ready for review			GENERATE / SUBMIT

Submit/Certify Report

- After all checks complete, SUBMIT/CERTIFY the report
- This LOCKS the report and it can no longer be edited



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Report Completion

- Once the report is submitted, Cal e-GGRT will send a confirmation email to the DR and others on the account
- Report submittal locks the report so data cannot be edited without CARB intervention
- Generated reports remain accessible in system
- Recommend printing and archiving generated report and any associated data

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Additional Info

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Helpful Websites

- Email reporting questions to: ghgreport@arb.ca.gov
- Reporting Guidance: Applicability, Metering
  https://ww2.arb.ca.gov/mrr-guidance
- Cal e-GGRT Tool Training: Registration, Subparts
  https://ww2.arb.ca.gov/mrr-tool
- Cal e-GGRT Main Help Page
  http://www.ccdsupport.com/confluence/display/calhelp/Home

Some Emissions Terminology

- Total CO_2 emissions
  - Measured or calculated value of CO_2 that includes both biogenic and non-biogenic emissions
- Fossil fuel CO_2 emissions
  - CO_2 emissions from fossil fuels
  - Fossil fuel portion of CO_2 from fuels with a fossil and biomass component (i.e. MSW and tires)
- Biogenic CO_2 emissions
  - CO_2 emissions from biomass fuels (wood, biogas, etc.)
  - Biogenic portion of CO_2 from fuels with a fossil and biomass component (e.g., municipal solid waste and tires)
- Non-Biogenic CO_2 emissions
  - CO_2 emissions from fossil fuels
  - Any N_2O or CH_4 combustion emissions
  - Sorbent CO_2
  - Process CO_2
  - Fossil fuel fraction of CO_2 from fuels with a fossil and biomass component (e.g., municipal solid waste and tires)

Key Reporting Dates

Date	Activity
January	Cal e-GGRT activated for the reporting year
February 1	Registration deadline for electric power entities (EPE) to register specified source facilities and units.
April 10	Reporting deadline for facilities and suppliers of fuels and carbon dioxide, except when subject to abbreviated reporting
June 1*	**Regulatory deadline: Reporting deadline for electric power entities and entities subject to abbreviated reporting**
July 15	Deadline for corrections to RPS Adjustment data required for electric power entity data reports
August 10*	Final verification statements due (emissions data and product data)

*If a date listed above falls on a Saturday, Sunday, or holiday, the due date is modified to the first business day after the listed date. For reporting of 2018 data in 2019, this means that the reporting deadline for EPEs and abbreviated reporters will be June 3rd, and the verification deadline will be August 12th.

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GHG Reporting Contacts

Subject Matter	Contact
GHG Mandatory Reporting (General)	Syd Partridge, Manager 916.445.4292
Reporting Tool Registration and General Questions	Karen Lutter 916.322.8620
Electricity Retail Providers and Electricity Marketers	Wade McCartney 916.327.0822
Fuel and CO_2 Suppliers - Transportation Fuels, Natural Gas, LPG, CO_2	Smadar Levy 916.324.0230
Greenhouse Gas Report Verification	Ryan Schauland, Manager 916.324.1847
Program Planning and Management Branch	Brieanne Aguila, Chief 916.324.0919

Notes