

GHG Reporting Kickoff Webinar for 2021 Data



JANUARY 26, 2022

SLIDES AVAILABLE HERE: <https://ww2.arb.ca.gov/our-work/programs/mandatory-greenhouse-gas-emissions-reporting/training>

Outline

- Overview
- General reporting and verification information
- Lessons learned from the past year
- Cal e-GGRT reporting tool updates
- Questions

This webinar focuses on facility and fuel supplier reporting.
A separate webinar will be held for Electric Power Entities in early March 2022.

2020 Data Reporting Recap

- 831 reports submitted
- 515 verified
 - 100% received positive / qualified positive emissions verification statements
- Other reports not subject to verification (i.e., abbreviated reporters or retail providers with no imports/exports)
- 2020 summary data posted for all reports here:
 - <https://ww2.arb.ca.gov/mrr-data>

Key Reporting Dates for 2021 Data

<https://ww2.arb.ca.gov/mrr-key-dates>

Date	Activity
April 11	Regulatory Deadline: Reports due for facilities and suppliers of fuels and carbon dioxide, except when subject to abbreviated reporting
June 1	Regulatory Deadline: Reports due for electric power entities and those subject to abbreviated reporting
August 10	Regulatory Deadline: Verification statements due (emissions data and product data)

Reporting and Verification Schedule

- RY2021 is the first year of the compliance period. All reporting entities require a site visit
- Verification statements due by Aug. 10th, 2022
- No extensions to reporting or verification deadlines
- Failure to submit a report or verification by the required deadline is a violation of the regulation for each day the report or verification is late

COVID-19 Concerns

- CARB expects all reporting requirements will be met – the regulation has not changed as a result of COVID
- Any issues that reporters or verifiers are having in meeting MRR requirements, as a direct result of COVID, are being reviewed by CARB on an individual basis
 - Reach out to CARB as early as possible

Enforcement

- Issues that could lead to enforcement
 - Incorrect data reported
 - Failure to fix correctable errors that result in an adverse statement
 - Late reports or failure to report
 - Late verification or failure to verify
- CARB has completed enforcement actions related to reporting
 - Completed MRR case settlements posted here:
 - <https://ww2.arb.ca.gov/resources/documents/mrr-enforcement>

General Reporting and Verification Information

Reporting Tips

- Use 2018 MRR to report 2021 data: <https://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-2018-unofficial-2019-4-3.pdf>
- CARB guidance materials located here: <https://ww2.arb.ca.gov/mrr-guidance>
- Utilize other resources available on the Mandatory Reporting website: <https://ww2.arb.ca.gov/our-work/programs/mandatory-greenhouse-gas-emissions-reporting>
- If you think you may be eligible for cessation of reporting or verification [pursuant to section 95101(h)] or are ceasing operations [section 95101(i)], contact CARB staff before the reporting deadline so we can ensure regulatory requirements are appropriately met
- Contact CARB for any questions about requirements (ghgreport@arb.ca.gov)
 - Save and file any CARB responses as part of your GHG Monitoring Plan and provide to your verifier

Verification Essentials

- First year of a new compliance period requires a site visit
- New verification body is required every six years
- Be prepared to trace data to its origin, especially during site visit
- Ensure GHG Monitoring Plan meets the requirements of section 95105(c) and includes any additional information that would be helpful to your verifier
- Correctable errors must be fixed. If not, verifier must submit an adverse statement.
- If verifier or reporter is unsure of requirements, please contact CARB for assistance
 - Retain written/emailed guidance from CARB staff for review by your verifier

Verification Best Practices

- Initiate verification as soon as possible to allow time for revisions
- Streamline verification:
 - Execute verifier contract prior to report certification
 - Associate your report with your verifier prior to report certification
 - Provide data to verifiers ASAP
 - Site visit required. It is good practice to having a webinar prior to the site visit.
 - Be ready for questions early in the process from your verifier
 - Communicate promptly to ensure important issues are discussed early
- Start early and plan to finish early ensuring timely submittal

Regulation and Guidance Updates

- GWP update for 2021+ data years
- Guidance documents available:

<https://ww2.arb.ca.gov/mrr-guidance>

- 2018 Regulation available:

<https://ww2.arb.ca.gov/mrr-regulation>

GWP Updates for 2021+ Data

- Use updated GWPs for 2021+ data
 - CH₄ – was 21, is now 25
 - N₂O – was 310, is now 298
- Cal e-GGRT has been updated with new GWPs
- Subparts MM and W required Cal e-GGRT Workbook updates for GWP factors
 - Be sure your own calculations include the new factors
- Refer to MRR section 95102 definition for global warming potential

New Biofuels

- Notify CARB if you supply or combust fuels not specifically defined in the MRR (e.g., renewable naphtha, bio-LPG)
- See MRR Table 2-5 for the current list of reportable biomass-derived transportation fuels

*Table 2-5
Blendstocks, Distillate Fuel Oils, and Biomass-Derived Fuels
Subject to Reporting under section [95121](#)*

Biomass-Derived Fuel
Ethanol (100%)
Biodiesel (≥99%, methyl ester)
Renewable Diesel (≥99%)
Rendered Animal Fat
Vegetable Oil

Reporting Reminders

- Don't forget to submit and certify a generated report
- If your report won't generate:
 - Clear all validation messages
 - Clear a pending Certificate of Representation (COR)
 - Time-out issues: Try generating your report 3-4 times, then notify CARB
- As the DR (Designated Representative), notify CARB if you will no longer serve as the DR
 - It's the company's responsibility to notify CARB and re-assign someone as the DR
 - We've had issues tracking down new personnel when the DR leaves
 - Late reporting violations do apply in such cases
- Notify CARB promptly if your facility is being sold or operational control is switching to a different operator
 - CARB will evaluate responsibility for reporting, verification, and C&T compliance
 - Can be complicated if transfer occurs during verification

Certifying and Submitting a Report

Ensure your annual emissions data report is “certified” in Cal e-GGRT

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	Status	Submitted Date	Certification Date	Verification Date	
2019 Annual Report v1	Submitted, Pending Certification and Signature	01/02/2020 6:50 AM	01/02/2020 6:50 AM		GENERATE / SUBMIT



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	Status	Submitted Date	Certification Date	Verification Date	
2019 Annual Report v1	Complete, Certified and Sent	01/02/2020 6:53 AM	01/02/2020 6:53 AM		HTML Excel XML Receipt


VERIFICATION BODY

This report does not require third party verification.

SUBMIT and CERTIFY REPORT

If you have reviewed and are satisfied with your Annual Report you may proceed to submit and certify your report. This process includes applying your electronic signature (entering your password and answering a security question).

[SUBMIT/CERTIFY →](#)

 After clicking the SUBMIT/CERTIFY button, and completing the certification process via Cal e-GGRT. You will not be able to generate a new report until the certified report is Requested by a verifier or CARB staff.

Clearing Validation Messages

Example: For electricity generating facilities, total facility electricity generation, and nameplate capacity in Subpart A must equal the sum of unit-level electricity generation and nameplate capacity in Subpart C

FACILITY-LEVEL VALIDATION MESSAGES		
Validation Type ¹	ID ²	Message ³
Data Completeness	A2001	The sum of all Net Generation amounts from each subpart C or D units must be within plus or minus 5 percent of the sum of all electricity dispositions found in the three Disposition of Generated Electricity sections on the Subpart A Overview page [95112(a)(4)(A), 95112(a)(4)(B), and 95112(a)(4)(C)].
Data Completeness	A2003	The sum of all Nameplate Generating Capacity amounts from each subpart C or D units must be equal to the Total Facility Nameplate Generating Capacity in the Subpart A Overview page.

Total Facility Nameplate Generating Capacity: <input type="text" value="100"/> MW		ELECTRICITY GENERATING UNITS BASIC INFORMATION					
Facility Type: Stand-alone electricity generating facility		Nameplate Generating Capacity: <input type="text" value="100"/> MW					
Facility's Energy Disposition: Grid-dedicated facility		Prime Mover Technology: Combustion Turbine (Single Cycle)					
DISPOSITION OF GENERATED ELECTRICITY [95112(a)(4)]		Type of Thermal Energy Generation: Electricity only EGU					
<table border="1"> <thead> <tr> <th>Retail Provider/Marketer [95112(a)(4)(A)]</th> <th>Electricity Provided or S</th> </tr> </thead> <tbody> <tr> <td>Alameda Municipal Power</td> <td>100000</td> </tr> </tbody> </table>	Retail Provider/Marketer [95112(a)(4)(A)]	Electricity Provided or S	Alameda Municipal Power	100000	ENERGY GENERATION INFORMATION		
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<table border="1"> <thead> <tr> <th>Generated Electricity for Grid Disposition [95112(a)(4)(A)]</th> </tr> </thead> <tbody> <tr> <td>+</td> </tr> </tbody> </table>		Generated Electricity for Grid Disposition [95112(a)(4)(A)]	+	Gross Generation: <input type="text" value="111000"/> MWh			
Generated Electricity for Grid Disposition [95112(a)(4)(A)]							
+							
		Net Generation: <input type="text" value="100000"/> MWh					

Subpart A

Subpart C

Clearing a Pending COR

- When a new DR/ADR accepts their invitation, a Certificate of Representation (COR) must be signed
- An incomplete COR appears under Home tab of invitee's account
- Report can not be certified and submitted with a pending COR



The screenshot shows a web application interface with a navigation menu at the top containing 'HOME', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. Below the navigation menu, there is a sidebar with a help icon and the text 'Cal e-GGRT Help' and 'About Cal e-GGRT Home'. To the right of the sidebar, there is a notification area with a bell icon and the text 'ACTION REQUIRED:'. Below the notification, there is a table with two columns: 'Action' and 'Facility or Supplier'. The table contains one row with the text 'Sign Certificate of Representation' and 'KL40 Stage Test'.

Action	Facility or Supplier
Sign Certificate of Representation	KL40 Stage Test

CARB Quality Assurance (QA)

- Process:
 - CARB staff complete QA checks on non-emissions errors
 - Send outreach to reporters and/or verifiers if potential errors are identified via direct email, phone call, or finding reports
 1. Spring/Summer Outreach = **Reactive**. To correct errors early on in the verification process
 2. January Outreach = **Proactive**. To prevent errors identified in prior reporting year from occurring in the new reporting year.) (**New for RY2021!**)

CARB QA Outreach: Finding Reports

- **What are they?** Excel csv files that lists QA check findings applicable for a particular reporting entity ("entity report") or for a particular user ("user report")
- **When are they issued?**
 - January: When Cal e-GGRT goes live (for proactive QA)
 - Late May: For reactive QA
- **Where do I find them?**
 - Entity report is uploaded into the Cal e-GGRT entity account for the relevant RY (Under Data Reporting > Select Facility > Facility or Supplier Overview: CARB ATTACHMENTS)
 - User report is uploaded into the Cal e-GGRT user account. (Under My Profile > Exchange Files with CARB: DOWNLOAD FILES FROM CARB)
- **How do I know when a finding report has been issued?** After reports have been uploaded in Cal e-GGRT, CARB will notify reporters and verifiers associated with entities who have been issued reports.

CARB QA Outreach: Finding Reports

- Entity report is uploaded into the Cal e-GGRT entity account for the relevant RY
- User report is uploaded into the Cal e-GGRT user account.

REPORT DATA

2020 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN
Section 95122 (Subpart NN)—Suppliers of Natural Gas and NGLs	View Messages	OPEN

[+ ADD or REMOVE Subparts](#)

SUBPART ATTACHMENTS

File Name	Subpart	Uploaded By	Uploaded Date
No files found.			

CARB ATTACHMENTS

[Choose File](#) No file chosen [UPLOAD](#)

File Name	Uploaded By	Uploaded Date	Delete
No files found.			

REPORTING | FACILITY MANAGEMENT | DATA REPORTING | HELP DESK | VERIFICATION BODIES

Hello, Maebeth Lopez | [My Profile](#) | [Logout](#)

My Profile

Menu

EDITING YOUR CAL E-GGRT PROFILE AND ACCOUNT INFORMATION

Use the links below to edit different aspects of your Cal e-GGRT user profile and account information.

- [Edit My Profile](#) : Organization Name, Address, Phone and FAX.
- [Edit My Email](#)
- [Request Name Change](#)
- [Change My Password](#)
- [Change My Secret Question/Answer](#)
- [Reset My Challenge Questions](#)
- [Exchange Files With CARB](#)

Lessons Learned

Annual Hours of Electricity Generation

- We check gross generation divided by nameplate (max rated heat input) capacity, which gives annual total operating hours

$$\frac{\text{Unit annual gross generation (MWh)}}{\text{Unit nameplate generating capacity (MW)}} = \text{Annual hours of operation (h)}$$

- Often find more than a year's worth of operation (8760 hours) reported

Configuration Type Single Unit Using Tiers 1, 2, or 3

Unit Name/ID *	<input type="text" value="test 1"/>
Description of the Unit or Unit Aggregation	<input type="text"/>
Unit Type *	<input type="text" value="OB (Boiler, other)"/> ▾
Maximum Rated Heat Input Capacity *	<input type="text"/>
Unit of Measure *	<input type="text" value="mmBtu/hr"/> ▾

ENERGY GENERATION INFORMATION

Gross Generation	<input type="text"/>	MWh
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Unit-level Heat Rate

- We check fuel input (MMBtu) divided by gross energy output (MWh), which gives unit-level heat rate (MMBtu/MWh) as a measure of efficiency
 - Keep in mind that a unit cannot produce more power than the fuel going into the unit.
- Values far outside a typical range of 7 MMBtu/mWh and 10 MMBtu/MWh receive additional scrutiny from CARB
 - Explanation of heat rate and expected values located in this EIA report:
<https://ww2.energy.ca.gov/2017publications/CEC-200-2017-003/CEC-200-2017-003.pdf>

ENERGY GENERATION INFORMATION

Gross Generation	<input type="text"/>	MWh
Net Generation	<input type="text"/>	MWh
Total Thermal Output (for Cogeneration or Bigeneration) [95112(b)(3)]	<input type="text"/>	mmBtu

FUEL INPUT DATA FOR EQUATIONS C-1 AND C-8

Mass or Volume of Fuel Combusted Per Year [Fuel]	<input type="text"/>	(scf)
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LPG Misreported as LPG - Propane

GHG SUMMARY

	Products 1, 3
<input type="checkbox"/>	LPG
<input type="checkbox"/>	LPG Ethane
<input type="checkbox"/>	LPG Ethylene
<input type="checkbox"/>	LPG Propane
<input type="checkbox"/>	LPG Propylene
<input type="checkbox"/>	LPG Butane

- Applies to importers of LPG
- If the component volumes of LPG are known, required to report by component
- If component volumes of LPG are unknown, report entire volume as LPG only
- If LPG – propane is reported by itself, then the volume is indicated as pure propane

Units Combusting Natural Gas

- Amount of fuel purchased in Subpart A (in MMBtu)

NATURAL GAS PURCHASE/ACQUISITION FOR REPORTING FACILITIES

Natural Gas Supplier's * Name Pacific Gas and Electric Company (PG&E) - Supplier of Natural Gas (ARB: 1040 ▾)

Other Natural Gas Supplier's Name

Customer Account * Number(s), Service Account Number(s), or Account Identifier(s). (Include all accounts)

Natural Gas Purchased/Acquired MMBtu

- Match closely with sum of unit-level heat inputs in Subpart C (or D)

EQUATION C-1 SUMMARY AND RESULT

Equation C-1 $CO_2 = 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF}$

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

Emission Type	Biogenic %	Fuel (scf)	HHV (mmBtu/scf)	EF	Calculated Result (metric tons)
CO ₂	0	188,000,000	0.001028	53.02	

What CO₂ result do you Use the calculated result rounded

Units Reporting Thermal Energy

- Thermal energy disposition in Subpart A needs to match closely with total thermal output in Subpart C
- Keep in mind: total thermal output should roughly equal how much steam you use + how much steam you sell

THERMAL ENERGY DISPOSITION	
Thermal Energy * Generating Unit, System, or Group Name	<input type="text"/>
End-User Name *	<input type="text"/>
ARB ID (if applicable)	<input type="text"/>
NAICS Code (optional)	<input type="text"/>
Thermal Energy Provided/Sold	<input type="text"/> MMBtu

Cogen/Bigen Units

- Total thermal output + total electricity generation should not exceed total unit heat (fuel) input(s)
- Important to double check because CARB is estimating emissions from electricity generation

ENERGY GENERATION INFORMATION

Gross Generation	<input type="text"/>	MWh
Net Generation	<input type="text"/>	MWh
Total Thermal Output (for Cogeneration or Bigeneration) [95112(b)(3)]	<input type="text"/>	mmBtu

Mass or Volume of Fuel Combusted Per Year [Fuel]	<input type="text"/>	(scf)
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Method Change Requests

- Section 95103(m) of MRR provides requirements for:
 - Temporary or permanent changes to prescribed methods
 - Alternative measurement and monitoring methods
- Contact CARB ASAP, if a method change is needed
- Submit requests as soon as possible to facilitate approval in timely manner

Cal e-GGRT Updates

Cal e-GGRT News & Reminders

- Tool is now available for 2021 data reporting:
<https://ww2.arb.ca.gov/mrr-tool>
- Cal e-GGRT release automatically migrates 2020 data configuration to 2021 reports
- Update DR, ADR, Agents (**Important!**)
- Contact GHG helpdesk if you have questions regarding QA outreach

Reminder: Choosing a Verification Body


- Entities can select a verification body prior to certifying

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	Status	Submitted Date	Certification Date	Verification Date	
2019 Annual Report v1	Ready for Verification	01/02/2020 6:53 AM	01/02/2020 6:53 AM		HTML Excel XML Receipt

VERIFICATION BODY



This report does not require third party verification.

- Verifiers submit conflict of interest forms electronically via Cal e-GGRT
 - Approvals from CARB typically take less than a week
 - New reporters must select a VB before verifier can submit COI

The Take Home Message

- GWP update for 2021 data
- Reach out to your verifier ASAP and select them in Cal e-GGRT
- No revisions to regulation or guidance documents this year
- Lots of resources available online
- Contact CARB for additional guidance or if any issues arise (<https://ww2.arb.ca.gov/mrr-contacts>)

Resources

- Email reporting questions to: ghgreport@arb.ca.gov
- Email verification questions to: ghgverify@arb.ca.gov
- Reporting Guidance
<https://ww2.arb.ca.gov/mrr-guidance>
- Reporter Training Presentations
<https://ww2.arb.ca.gov/our-work/programs/mandatory-greenhouse-gas-emissions-reporting/training>
- Cal e-GGRT Training
<https://ww2.arb.ca.gov/mrr-tool>
- Cal e-GGRT Main Help Page
<http://www.ccdsupport.com/confluence/display/calhelp/Home>
- Verification Bodies
<https://ww2.arb.ca.gov/verification-bodies>

GHG Reporting Contacts

All questions can be directed to ghgreport@arb.ca.gov

Program / Sector	Contact
Manager – Climate Change Reporting Section	Syd Partridge Syd.Partridge@arb.ca.gov
General Reporting Requirements, Stationary Combustion, Electricity Generation and Cogen, Miscellaneous Sectors, Cal e-GGRT Reporting	Maebeth Lopez Maebeth.Lopez@arb.ca.gov
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Fuel and CO ₂ Suppliers (Transportation Fuels, Natural Gas, LPG, and CO ₂)	Smadar Levy Smadar.Levy@arb.ca.gov
Petroleum Refineries, Hydrogen Plants, Oil & Gas Production, and Associated Product Data	DJay Patel DJay.Patel@arb.ca.gov
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More contact information at: https://ww2.arb.ca.gov/mrr-contacts	

Questions

