

Regulation for the  
Mandatory Reporting of Greenhouse Gas Emissions

**GHG Reporting for 2014 Data**  
**Electric Power Entities**

Electricity Retail Providers and Marketers  
under Section 95111

April 27, 2015

Presentation Slides Available Here:

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

# Outline

- Overview
- Regulation Updates
- Preparing for 2014 Data Reporting
- Cal e-GGRT Reporting Tool Updates
- Guidance
- Other topics
- Questions

# 2013 Data Reporting Recap

## All Reporting Entities

- 750 reports submitted
- 519 verified
  - 100% received positive emissions verification statements (includes 12 qualified positive)

## Electric Power Entities

- 110 reports submitted; 76 verified
- 34 reports retail sales only with no imports/exports

## Summary data posted for all reports

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

# Reporting Schedule

- June 1, 2015
  - Reports due for EPEs and electricity retail providers
  - **No time extensions**
- July 15, 2015
  - Deadline for corrections to RPS Adjustment data
- Failure to submit a report by the required deadline is a violation of the regulation for each day the report remains unsubmitted
- Key Dates Reference Page:  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-dates.htm>

# Verification Schedule

- September 1, 2015
  - Final Verification Statements due for all EPEs
  - **No time extensions**
- Start early to ensure on-time completion and to correct any issues identified during verification
- Verifiers must submit **Adverse** statement if verification not completed on time
- Failure to have a verification statement(s) submitted by the verification deadline is a violation of the regulation for each day the verification statement remains unsubmitted

# Enforcement Summary

- Issues that could lead to enforcement actions
  - Incorrect data submitted
  - Errors leading to a material misstatement
  - Failure to fix correctable errors
  - Late reports or failure to report
  - Late verification or no verification
- ARB has completed multiple enforcement actions related to reporting, and continues enforcement activities
- As completed, case settlements are posted here:  
<http://www.arb.ca.gov/enf/casesett/casesett.htm>

# Cal e-GGRT Tool Availability



- Tool available NOW
  - 2014 data reporting activated for EPEs
  - Must use updated Workbooks 1-4
    - Reflect current reporting requirements
    - Include 2014 specified source emission factors
- Guidance on EPE requirements is posted
  - FAQ on EPE Reporting Requirements
  - FAQ on Energy Imbalance Market (EIM) Transactions Reporting

# 2014 Regulation Updates

- Revisions went into effect January 1, 2015
- Regulation available here:  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-regulation.htm>
- All updates are effective for 2014 data reporting
  - No exceptions were specified in section 95103(h) for EPEs
- No plans for regulation updates in 2015



# Key Regulation Updates

- CAISO Sales: Publicly owned utilities (POU) and electrical cooperatives (co-op) must report MWhs sold into CAISO markets (section 95111(a)(12))
- Transmission Loss Factor (TLF): Specifies when TLF of 1.02 or 1.0 must be used (section 95111(b)(2))
- Meter Data Requirement: Requires meter data and Lesser of Analysis for some imports (section 95111(b)(2)(E))
- REC Serial Numbers for Imports: Requires renewable energy credit (REC) serial numbers to be reported for certain imports (section 95111(g)(1)(M)(3))

# CAISO Sales (section 95111(a)(12))

- New MRR requirement for POU's and co-ops
  - Must report the annual MWhs of all electricity sold into the CAISO markets for which the entity has a compliance obligation
- Verifiers must contact ARB directly to confirm that a specific entity is not subject to this requirement

# Reporting CAISO Sales in Workbook 1

CAISO SALES BY ELECTRICAL DISTRIBUTION UTILITIES (EDU) THAT ARE NOT IOUs (95111(a)(12))

Are you required to report electricity sales into CAISO pursuant to section 95111(a)(12)? Select (Yes/No)

If "Yes," complete the table below.

TO ADD ROW(S) TO THE TABLE USING MACROS, enter the number of rows to be added and click the "Add Row(s)" button. Rows to Add to the table below: 1

TO DELETE EXTRANEOUS ROWS USING MACROS, specify the row number to be deleted and click the "Delete Row" button. Row to Delete from the table below: 14

NOTE: You will need to enable macros for either button to work. If you do not wish to enable macros, or are an expert user, please unlock the workbook by right-clicking the active worksheet and selecting "the sheet and then subsequently use the macro, this will reprotect the sheet.

TO ADD ROW(S) TO THE TABLE WITHOUT USING MACROS, use one of the following methods:  
 1. Insert a row or rows into the middle of the table, above the last row. WARNING: If you insert a row after the table, it will not properly export to XML.  
 2. Drag the blue marker in the far right corner of the table down.

TO DELETE ROW(S) TO THE TABLE WITHOUT USING MACROS, select the row(s) that you wish to delete, right click on and select "Delete"

Facility and Unit ID Name Note: Select "Other" if facility is not listed or select "Unknown" if the source of electricity is not known	ARB Facility and Unit ID#	If facility is not listed, enter Facility Name (if known) if unknown, leave blank	Year	Megawatt-Hours (MWh) for all electricity sold into the CAISO markets for which an EDU has a compliance obligation	Emission Factor (if known) Facility-specific or unit-specific emission factor (MT CO <sub>2</sub> e/MWh)
Rows inserted below this message will not be saved in the XML upload					

Instructions | Version | Guidance | Data Export XML | Reporter Info | COVERED EM CALC | Retail Provider | CAISO Sales | Unspec Imports | Spec Imports | RPS Adjust

"CAISO Sales" tab

## Transmission Loss Factor (section 95111(b)(2))

- Apply TL factor 1.02 (2% loss) when losses not supported by a California balancing authority
- Apply TL factor 1.0 (0% loss) when losses:
  - Have been accounted for, or
  - Supported by CA balancing authority, or
  - Compensated by using electricity sourced from within California
- Contact ARB staff with specific questions

# Transmission Loss Factor in Workbook 1

20 Delete Row

please unlock the workbook by right-clicking the active worksheet  
set.

properly export to XML.

Delete

## “Spec Imports” tab

### PHYSICAL TRANSACTION ATTRIBUTES -- IMPORTED POWER

Transaction Start Date (Required if reporting by e-tag transaction) [Optional]	Transaction End Date (Required if reporting by e-tag transaction) [Optional]	NERC e-tag Code (Required if reporting by e-tag transaction) [Optional]	Jurisdiction Full Name in which the Facility is Located	E-Tagged, Metered, or EIM?	Transmission Loss Factor Determination per 95111(b)(2)	MWh as measured at the Busbar or at the First Point of Delivery (POD) inside California per 95111(a)(4)(A)(2) on NERC e-tag	[TL] Transmission loss correction factor, = 1.00 or 1.02 (MWh must include transmission loss factor (*1.02) if not measured at busbar or if supplied by BPA)
							1.0

(1) Non-California BAA Generation TL=1.02  
 (2) Accounted For using TL=1.0  
 (3) California BAA Generation TL=1.0  
 (4) California Sourced Generation TL=1.0

the picklist.

Instructions Version Guidance Data Export XML Reporter Info COVERED EM CALC Retail Provider CAISO Sales Unspec Imports Spec Imports RPS Adjust R

## Meter Data Requirement and Lesser of Analysis (section 95111(b)(2)(E))

- Applies to zero emission and RPS resources except:
  - Grandfathered RPS, dynamically tagged power, untagged power including EIM, nuclear, ACS power, hydro resources where hourly output is not established by contract
- Clarifies requirement to retain meter generation data
- For applicable imports, reporter is required to compare imports listed on e-tag with actual generation from the resource

## Meter Data Requirement and Lesser of Analysis (section 95111(b)(2)(E)) (cont.)

- If e-tag value is greater, the generated value can be claimed as a specified import, with the balance claimed as “substitute power” (unspecified import)
- If generation exceeds tagged imports, the e-tag value is the specified import; the excess generation may be claimed as RPS adjustment, subject to applicable requirements
- Verifier will review sample tags, meter generation data, and the EPE hourly comparison spreadsheet

# Meter Data Requirement in Workbook 1

“Spec Imports” tab

Renewable Energy Credit (REC) Serial Numbers, Meter Data, and Lesser of Analysis							
Is the power from an Eligible Renewable Energy Resource, per Section 95802(a) (Y/N)	Are REC Serial Numbers required for this line item?	Number of REC Serial Numbers required?	Did you submit the REC Serial Numbers in the “REC Serial” tab of Workbook 1, per 95111(g)(1)(M)?	Compliance with REC Serial Number Requirements	Meter Data Requirement, per Section 95111(b)(2)(E) Is this a Zero Emission or RPS Eligible Resource?	Meter Data Requirement, per Section 95111(b)(2)(E) Is this resource excluded from the Meter Data Requirement? If so, select the applicable exclusion.	Meter Data Requirement, per Section 95111(b)(2)(E) Are both (1) Meter Data, and (2) a Lesser of Analysis required?
	No	0		N/A	Yes	Not Excluded 1. Grandfathered Resource 2. Dynamically Tagged 3. Untagged or EIM 4. Nuclear 5. ACS Power 6. Share of metered hydro by non-contract Does Not Apply	No

>>>

Navigation: Instructions | Version | Guidance | Data Export XML | Reporter Info | COVERED EM CALC | Retail Provider | CAISO Sales | Unspec Imports | **Spec Imports**



# Lesser of Analysis Example

Description		<i>Example 1</i> <b>Under- Generation</b> (MW or MWh)	<i>Example 2</i> <b>Over- Generation</b> (MW or MWh)
1	<i>Metered Generation at Source A</i>	85	115
2	<i>Scheduled on e-Tag</i>	100	100
3	<b>Lesser Of Meter or Scheduled</b>	<b>85</b>	<b>100</b>
4	<i>Zero Emission Specified Source Claim</i>	85	100
5	<i>Substitute Power</i>	15	0
6	<i>Potential RPS Adjustment Claim</i>	0	15

## REC Serial Numbers for Specified Source Imports (section 95111(g)(1)(M)(3))

- RECs do not need to be retired
- REC serial numbers must still be reported for any California RPS-eligible resources
  - Failure to report REC serial numbers by the verification deadline = nonconformance = qualified positive verification statement
- Implemented for 2014 data reported in 2015, and future years

# REC Serial Numbers for Specified Source Imports – in Workbook 1

AW	AX	AY	AZ	BA	BB	BC	BD	BE
				Total Number of Specified Source REC Serial Numbers required				
				50,000				
<b>Renewable Energy Credit (REC) Serial Numbers, Meter Data, and Lesser of Analysis</b>								
	Is the power from an Eligible Renewable Energy Resource, per Section 95802(a) (Y/N)	Are REC Serial Numbers required for this line item?	Number of REC Serial Numbers required?	Did you submit the REC Serial Numbers in the "REC Serial" tab of Workbook 1, per 95111(g)(1)(M)?	Compliance with REC Serial Number Requirements	Meter Data Requirement, per Section 95111(b)(2)(E)  Is this a Zero Emission or RPS Eligible Resource?	Meter Data Requirement, per Section 95111(b)(2)(E)  Is this resource excluded from the Meter Data Requirement? If so, select the applicable exclusion.	Meter Data Requirement, per Section 95111(b)(2)(E)  Are both (1) Meter Data, and (2) a Lesser of Analysis required?
	Yes	Yes	50,000	Yes	Yes	Yes	Not Excluded	Yes

"Spec Imports" tab

# REC Retirement for RPS Adjustments (section 95111(g)(1)(M)(1))

- No RPS adjustment can be claimed without retired REC reported in “REC serial” tab
- RECs must be retired in the subaccount by July 15<sup>th</sup>
- RECs retired must be used to comply with California RPS requirements during the same year the RPS adjustment was claimed (section 95852(b)(4) of Cap-and-Trade)
- RPS adjustment can only be claimed for electricity procured for RPS compliance but not delivered to California by the reporting entity

# REC Retirement for RPS Adjustments in Workbook 1

RPS ADJUSTMENT REQUIREMENTS									
ELIGIBLE RESOURCE	RIGHTS	REC STATUS	REC DATE	DELIVERY	ELIGIBLE RESOURCE	RIGHTS	REC STATUS	DELIVERY	ELIGIBLE RPS ADJUSTMENT
Is the power from an Eligible Renewable Energy Resource, per Section 95802(a) (Y/N)	Electricity Importer Must Have Either of the following, per 95852(b)(4)(A)	RECs must be used to comply with California RPS requirements during the same year in which the RPS adjustment is claimed, per 95852(b)(4)(B)	Date RECs Retired in WREGIS Subaccount?	No RPS adjustment may be claimed for an eligible renewable energy resource when its electricity is directly delivered, per 95852(b)(4)(D)	Is the power from an Eligible Renewable Energy Resource, per Section 95802(a) (Y/N)	Electricity Importer Must Have Either of the following, per 95852(b)(4)(A)	RECs must be used to comply with California RPS requirements during the same year in which the RPS adjustment is claimed, per 95852(b)(4)(B)	No RPS adjustment may be claimed for an eligible renewable energy resource when its electricity is directly delivered, per 95852(b)(4)(D).	Eligible for RPS Adjustment?
Yes	Ownership or Contract Rights	Retired in WREGIS	5/1/15	Not Directly Delivered to CA	0	0	0	0	Eligible

  

Yes	Ownership or Contract Rights	Retired in WREGIS	1st POR is CA BAA
No	On Behalf of Owner or Contracted Entity	Will Be Retired Later	1st POR via Distribution Grid
	Neither	Did Not Buy RECs	Spec Source to POD in CA
		Sold the RECs	Dynamic Transfer
			Not Directly Delivered to CA

# Energy Imbalance Market (EIM)

- California ISO Energy Imbalance Market began operation on November 1, 2014
- Electricity imports/exports documented via CAISO Market Results Interface (CMRI)
- See EIM FAQ, [www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/eim-faqs.pdf](http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/eim-faqs.pdf)
- EIM market participants subject to same reporting and verification requirements as other EPEs

# Energy Imbalance Market (EIM) in Workbook 1

Rows to Add to the table below: **1** Add Row(s)

Rows to Delete from the table below: **20** Delete Row

Use macros, or are an expert user, please unlock the workbook by right-clicking the active worksheet and clicking on the "Unprotect Sheet" button. If you are not an expert user, this will reprotect the sheet.

If you insert a row after the table, it will not properly export to XML.

To delete a row, right click on the row and select "Delete"

**"Spec Imports" tab**

**PHYSICAL TRANSACTION ATTRIBUTES -- IMPORTED POWER**

Reported By First of Receipt in NERC e-tag or near, the source per (a)(3) [Input POR Code]	First Point of Receipt (POR) Full Name	Transaction Start Date (Required if reporting by e-tag transaction) [Optional]	Transaction End Date (Required if reporting by e-tag transaction) [Optional]	NERC e-tag Code (Required if reporting by e-tag transaction) [Optional]	Jurisdiction Full Name in which the Facility is Located	E-Tagged, Metered, or EIM?	Transmission Loss Factor Determination per 95111(b)(2)	MWh as measured at the Busbar or at the First Point of Delivery (POD) inside California per 95111(a)(4)(A)(2) on NERC e-tag
								50,000

Legend: Tagged, Metered, or EIM.

Worksheet tabs: COVERED EM CALC, Retail Provider, CAISO Sales, Unspec Imports, **Spec Imports**, RPS Adjust, REC Serial, QE Adjust, Unspec Exports, Spec Exports, W1

# Reporting Tips

- Start early, finish early
- Involve verifier as soon as possible
  - Include enough time to make verification revisions
- Update DR, ADR, Agents if needed
  - They have access to system until you remove them
- Contact ARB for any questions about requirements ([ghgreport@arb.ca.gov](mailto:ghgreport@arb.ca.gov))
- Check ARB guidance:  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>



# Verification Tips

- EPE must demonstrate to verifier that “covered emissions” have no material misstatement and no correctable errors to avoid adverse verification statement
  - Verifier uses risk-based sampling and professional judgement as to whether standard of reasonable assurance is met
  - If verifier and reporter disagree on requirements, always contact ARB for assistance
- GHG Inventory Program documentation must clearly describe or reference how EPE ensures:
  - All electricity imports, exports, and wheels are included and appropriately accounted
  - All RPS adjustments and qualified export adjustments meet eligibility criteria
  - All REC serial numbers are reported for California-eligible renewable energy resources claimed in specified imports or RPS adjustments
- GHG Inventory Program documentation must include all ARB written interpretations provided to EPE

# Resource Web Sites

- Email reporting questions to: [ghgreport@arb.ca.gov](mailto:ghgreport@arb.ca.gov)
- EPE Reporting Guidance  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/ghg-rep-power.htm>
- Cal e-GGRT Tool Training  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm>
- Cal e-GGRT Main Help Page  
<http://www.ccdsupport.com/confluence/display/calhelp/Home>

# Key Reporting Dates

Date	Activity
February 2	Regulatory deadline: Due date for electric power entities to register specified facilities outside California
February 18	Public release of Cal e-GGRT
<b>April 10</b>	Regulatory deadline: Reporting deadline for facilities and suppliers of fuels and carbon dioxide, except when subject to abbreviated reporting
<b>June 1</b>	Regulatory deadline: Reporting deadline for electric power entities and those subject to abbreviated reporting
July 15	Regulatory deadline: Deadline for corrections to RPS Adjustment data required for electric power entity data reports
<b>September 1</b>	Regulatory deadline: Final verification statements due (emissions data and product data)

# GHG Reporting Contacts

Subject Matter	Contact
Manager – Climate Change Reporting Section	<a href="#">Brieanne Aguila</a> , Manager 916.324.0919
General Reporting Requirements, Stationary Combustion, Miscellaneous Sectors (cement, glass, pulp and paper, etc.), Cal e-GGRT Reporting	<a href="#">Patrick Gaffney</a> 916.322.7303
Reporting Tool Registration and General Questions	<a href="#">Karen Lutter</a> 916.322.8620
Electricity Generation and Cogeneration Facilities	<a href="#">Karen Lutter</a> 916.322.8620
Electricity Retail Providers and Electricity Marketers	<a href="#">Wade McCartney</a> 916.327.0822
Fuel and CO <sub>2</sub> Suppliers - Transportation Fuels, Natural Gas, LPG, CO <sub>2</sub>	<a href="#">Syd Partridge</a> 916.445.4292
Petroleum Refineries, Hydrogen Plants, Oil & Gas Production, and Associated Product Data	<a href="#">Byard Mosher</a> 916.323.1185
Manager – Greenhouse Gas Report Verification	<a href="#">Renee Lawver</a> , Manager 916.322.7062
Chief – Program Planning and Monitoring Branch	<a href="#">Jim Aguila</a> , Chief 916.322.8283

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