Settlements & Billing

Configuration Guide: Day Ahead Greenhouse Gas Emission Cost Revenue

**CC 8310**

Version 5.0

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# Purpose of Document

The purpose of this document is to capture the requirements and design specification for a Charge Code in one document.

# Introduction

## Background

Imports of energy into California and generation of energy within California from CO2 emitting resources, result in an obligation for the market participant to surrender compliance instruments to the California Air Resources Board (CARB) for the greenhouse gas emissions associated with the energy pursuant to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism Regulation. Energy generated outside of California that is not imported into California is not subject to this obligation.

The Extended Day Ahead Market (EDAM) will account for this through the following:

It will incorporate the cost of the greenhouse gas compliance obligation into its dispatch of generation within an EDAM Entity to serve load in a GHG Regulation Area, but not consider this cost when it dispatches this generation to serve load outside of a GHG Regulation Area.

## Description

As a result of the day ahead market settlement, the ISO will collect GHG compliance revenue for the net day ahead energy export from all EDAM Entity BAAs at the respective net day ahead energy export allocation constraint shadow price.

GHG compliance costs are reflected through the GHG constraint shadow price component in the locational marginal prices (LMPs) in the EDAM Entity BAA. This LMP component is positive and can be seen as a cost adder to the marginal energy component to reflect the marginal cost of GHG compliance in EDAM Entity BAAs for energy exported to a GHG Regulation Area. This LMP component is absent for locations in a GHG Regulation Area because in these cases the cost of GHG compliance is included in the energy bids; hence it is already reflected in the marginal energy component.

The CAISO will report to each EDAM Participating Resource Scheduling Coordinator the portion of the DAM Energy Schedule that is associated with Energy deemed to have been exported to a GHG Regulation Area from all EDAM Resources as part of the Day Ahead Market results publication from each of its EDAM Resources.

# Charge Code Requirements

## Business Rules

| Bus Req ID | Business Rule |
| --- | --- |
|  | This Charge Code shall be calculated and output on an hourly Settlement Interval basis. |
|  | The CAISO will compensate the EDAM Participating Resource Scheduling  Coordinator for any Energy that is deemed to have been imported into a GHG Regulation Area at the marginal GHG price. |
|  | Settle GHG payment as the product of the Deemed Greenhouse Gas Quantity to GHG Regulation Area \* Greenhouse Gas marginal GHG price. |
|  | The Greenhouse Gas marginal GHG price shall be included as a component in the Locational Marginal Prices for GHG Regulation Area. |
|  | The system shall calculate and broadcast net export to the GHG Regulation Area for each EDAM resource for GHG payment. |
|  | The term net export is from the perspective of the EDAM Entity Area to the GHG Regulation Area. (fact) |
|  | For adjustments to the Charge Code that cannot be accomplished by correction of upstream data inputs, recalculation or operator override, Pass Through Bill Charge logic will be applied. |

## Predecessor Charge Codes

| Charge Code/ Pre-calc Name |
| --- |
| None |

## Successor Charge Codes

| Charge Code/ Pre-calc Name |
| --- |
| CC 491 Real Time Greenhouse Gas Emission Cost Revenue |
|  |

## Inputs - External Systems

|  |  |  |
| --- | --- | --- |
| Row # | Variable Name | Description |
| 1 | PTBDayAheadGHGEmissionCostAdjustmentAmt BQ’G’’Jmd | PTB Charge Adjustment for this charge code. |
| 2 | EDAMDAMGHGMarginalPrc BrtQ’G’’mdh | The DAM GHG shadow price component in the (LMPs) of GHG Regulation Area by resource by hour. |
| 3 | BAResourceEDAMGHGQty BrtQ’F’S’G’’mdh | Net export (MW) to the GHG Regulation Area for each EDAM resource for GHG payment. |

## Inputs - Predecessor Charge Codes or Pre-calculations

| Row # | Variable Name | Predecessor Charge Code/  Pre-calc Configuration |
| --- | --- | --- |
|  |  |  |

## CAISO Formula

The daily uplift settlement of Day Ahead Greenhouse Gas Emission Cost Revenue for each resource is as follows:

### BAResourceEDAMGHGPaymentAmount BrtQ’F’S’G’’mdh =

BAResourceEDAMGHGQty BrtQ’F’S’G’’mdh \* EDAMDAMGHGMarginalPrc BrtQ’G’’mdh

### BAResourceEDAMIFMNetGHGAmount BrQ’F’mdh = SUM ( t,S’,G’’) BAResourceEDAMGHGPaymentAmount BrtQ’F’S’G’’mdh

### BAResourceEDAMGHGQuantity BrtQ’F’S’mdh =

SUM (G’’) BAResourceEDAMGHGQty BrtQ’F’S’G’’mdh

## Outputs

| Row # | Name | Description |
| --- | --- | --- |
|  | In addition to any outputs listed below, all inputs shall be included as outputs. |  |
| 1 | BAResourceEDAMGHGPaymentAmount BrtQ’F’S’G’’mdh | The DAM cost of the greenhouse gas compliance obligation related to an EDAM Entity dispatch of generation serving GHG Regulation Area load. |
| 2 | BAResourceEDAMIFMNetGHGAmount BrQ’F’mdh | Intermediate charge type to drop attributes for use in IFM BCR calculations. |
| 3 | BAResourceEDAMGHGQuantity BrtQ’F’S’mdh | Intermediate charge type to drop GHG Regulation Area from Day Ahead |

# Charge Code Effective Dates

| Charge Code/  Pre-calc Name | Document Version | Effective Start Date | Effective End Date | Version Update Type |
| --- | --- | --- | --- | --- |
| CC 8310 – Day Ahead Greenhouse Gas Emission Cost Revenue | 5.0 | 05/01/26 | Open | Configuration Impacted |