



California ISO

2023 Material Modification Assessment Cost Report

Published July 2024

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1. Executive Summary

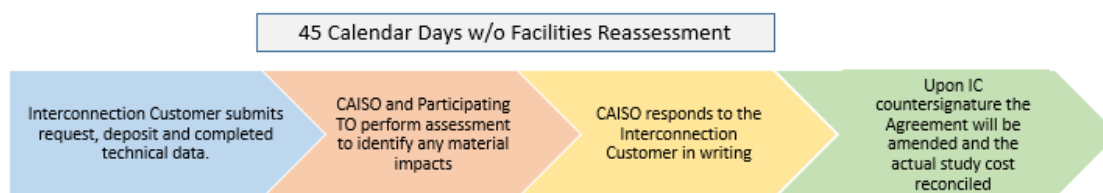
1.1 Purpose and Scope

The CAISO evaluates a variety of modification requests for Interconnection Customers' generator projects. In doing so, the CAISO coordinates with the relevant Participating TO(s), Affected Participating TO(s) and Affected System Operator(s), if appropriate. To provide transparency regarding the cost of material modification assessments ("MMA"), the Tariff requires the CAISO to publish cost data for the MMAs annually. This report contains a description of the number, types, duration, and costs of MMA requests completed in 2023.

1.2 Background

The CAISO generally uses the same process and criteria to review modification requests for all generation projects.¹

A high level-depiction of the MMA process is below:



If a Facilities Reassessment is required, the modification assessment can take an additional 45 calendar days. The Facilities Reassessment is initiated after completion of the MMA and the determination that the modification request is not material.

Interconnection Customers are required to provide a \$10,000 deposit for the MMA. Following the MMA, the CAISO invoices for the actual costs incurred for the modification assessment. The invoices include an itemized account of expenses incurred, including those incurred by the CAISO, the Participating TOs, and third parties at the direction of the CAISO or Participating TO. Whenever the actual cost of performing the modification assessment exceeds the modification assessment deposit, the invoice directs the Interconnection Customer to pay the excess amount. If the actual cost of performing the modification assessment is less than the modification assessment deposit, the CAISO reimburses the Interconnection Customer the difference.

¹ The MMAs discussed in this report are governed by CAISO Tariff Appendix S, Section 1.3.4; Appendix T, Section 3.4.5; Appendix U, Section 4.4.3; Appendix Y, Section 6.9.2.2; or Appendix DD, Article 6.7.2.2 as applicable, and the BPM for Generator Management.

1.3 Report Summary

1.3.1 Types of Modifications

The Interconnection Customer must submit to the CAISO, in writing, a request to modify their Project and any information provided in the Interconnection Request or Generator Interconnection Agreement. The variety, content, and scope of modification requests are as unique and complex as the Generating Facilities themselves, but for the purpose of this report, MMA requests are categorized into seven “buckets”:

- 1) Commercial Operation Date (“COD”) extensions and/or requests for project Phasing;
- 2) Technology changes: inverter, add batteries, transformer, and equipment changes;
- 3) Interconnection changes: generation tie route changes, Point of Interconnection changes, Point of Change of Ownership changes, and site location changes;
- 4) Technology and Interconnection Changes: Technology and interconnection changes as discussed above;
- 5) COD and Interconnection: COD and interconnection changes as discussed above;
- 6) COD and Technology: COD and technology changes as discussed above; and
- 7) Complex changes: multiple changes including COD, technology, and/or interconnection as discussed above.

1.3.2 Time

The modification assessment commences when the CAISO and Participating TO (1) deem the modification request (including all of the necessary technical documentation) valid and data complete, and (2) receive the Interconnection Customer’s modification assessment deposit. Per the Tariff, the CAISO targets providing a written response to the Interconnection Customer within 45 calendar days of commencing the assessment. If the modification assessment is unable to be completed within that period, the CAISO notifies the Interconnection Customer, provides an estimated completion date, and explains why additional time is required.

A facilities reassessment may be required after the modification request has been determined to not be material, which can take up to an additional 45 calendar days. If the facilities reassessment is unable to be completed within that period, the CAISO notifies the Interconnection Customer, provides an estimated completion date, and explains why additional time is required.

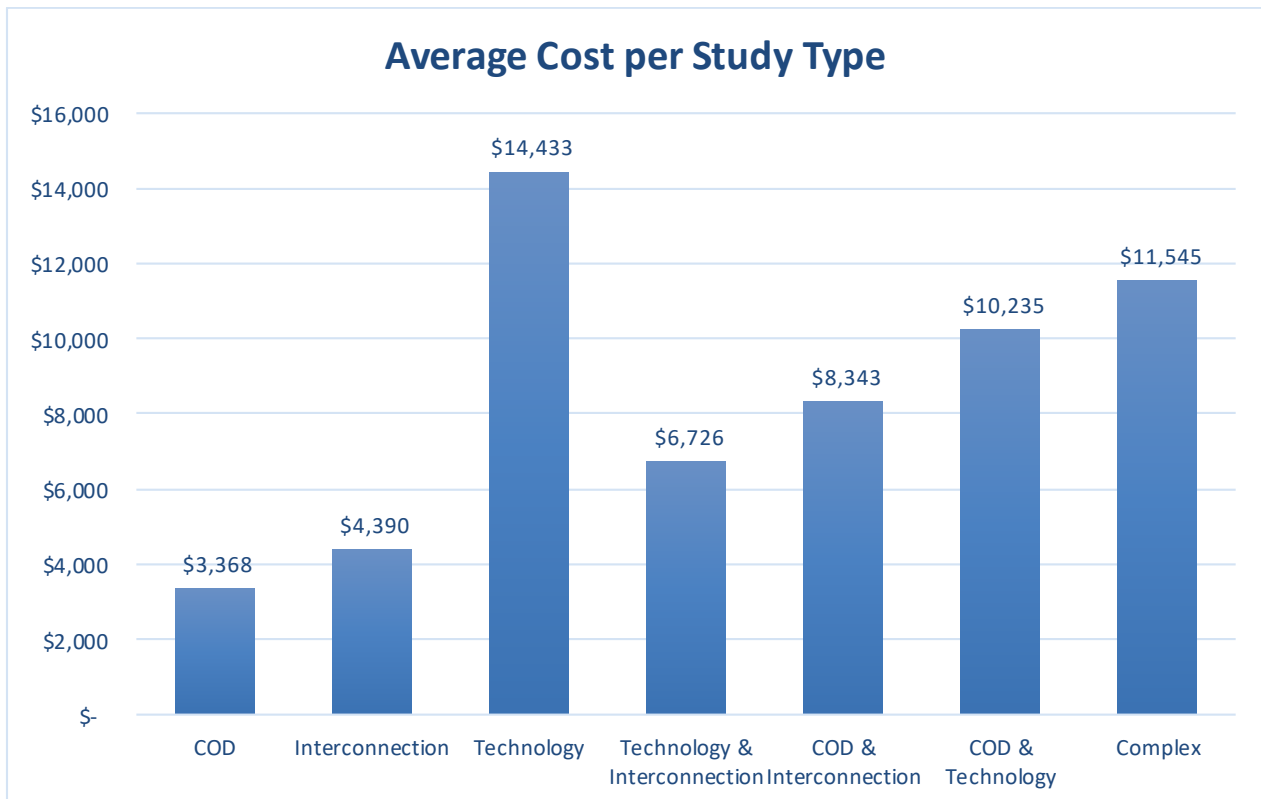
2.0 Report

2.1 MMA Costs

The CAISO received 122 MMAs in 2023, of which, thirteen (13) were cancelled and did not result in a final report being published and 109 modifications were fully completed. Of the 122 received - 52 COD, 33 Technology Changes, 2 Interconnection Changes, 8 Technology and Interconnection, 3 COD and Interconnection, 18 COD and Technology, and 6 Complex (see definitions as defined in section 1.3.1).

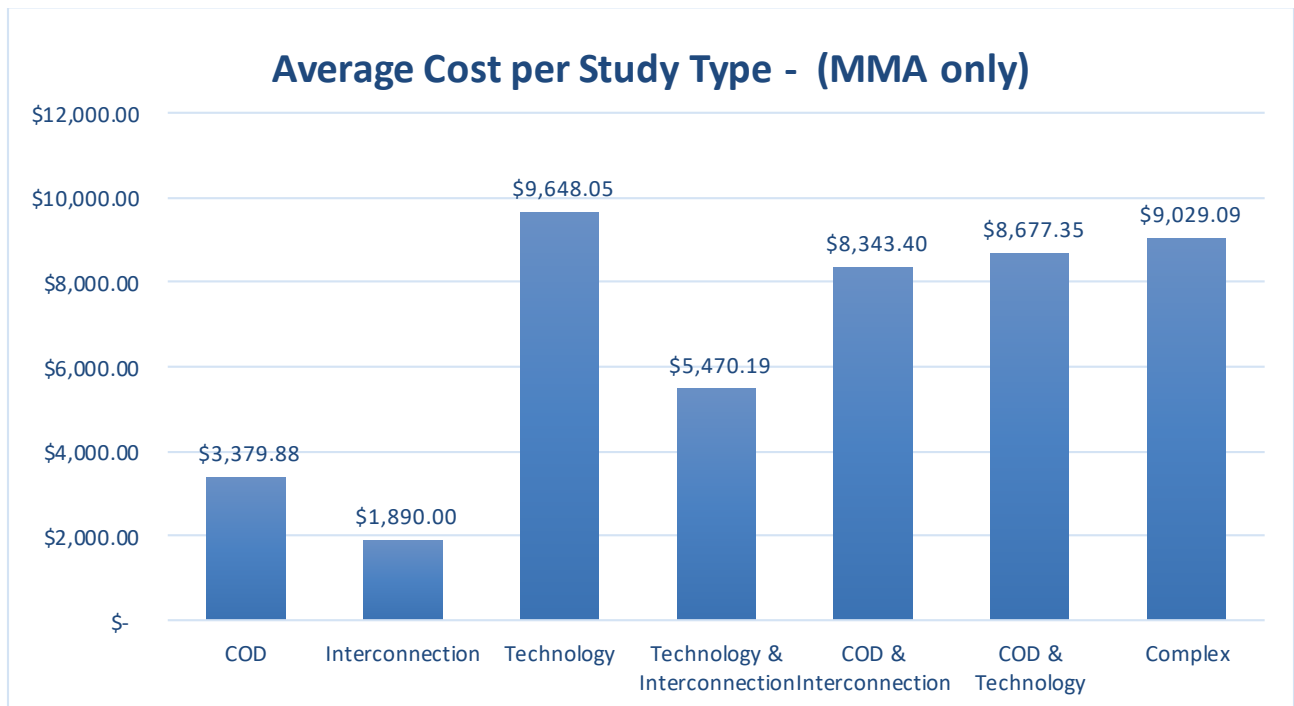
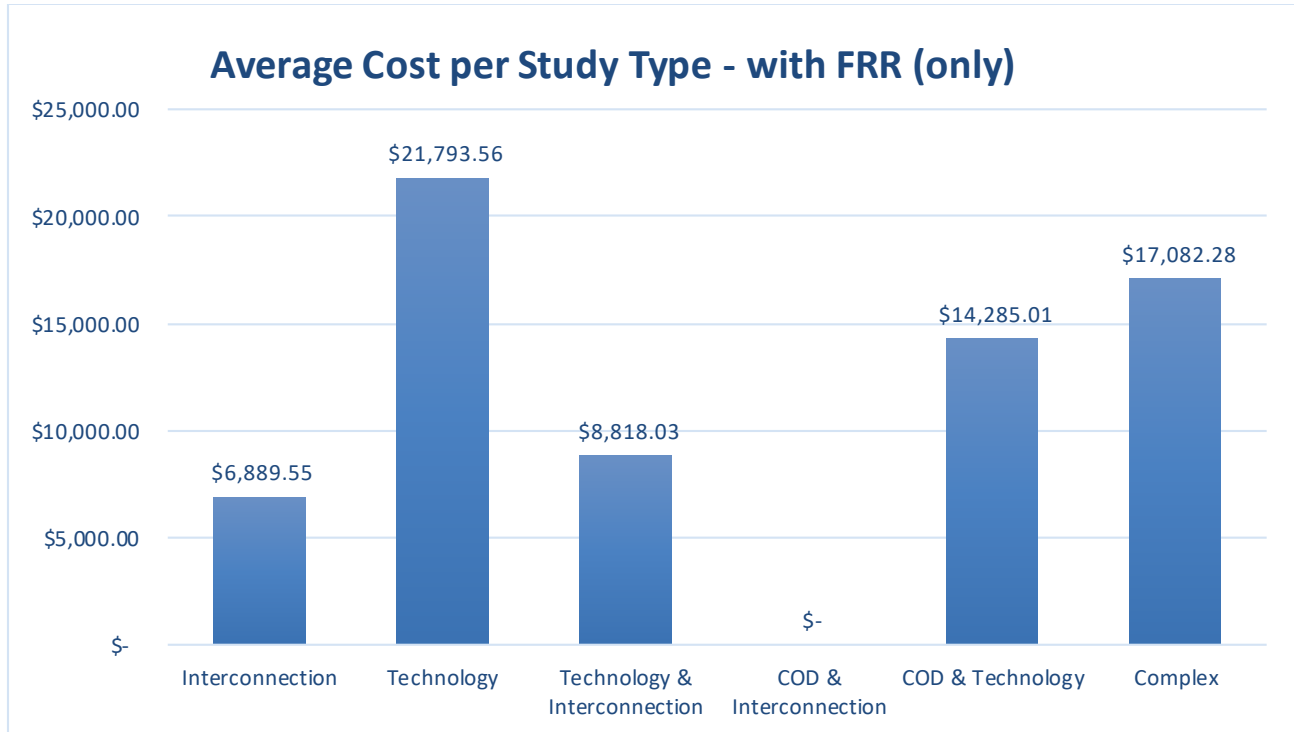
The average cost for all MMAs, including canceled MMAs, in 2023 was \$8,135.34. The highest-cost modification assessment was \$56,787.56. The lowest-cost modification assessment was \$726.50.²

Of the 122 modifications that completed the accounting close-out process, thirty-three (33) modifications resulted in costs greater than \$10,000, thirty-two (32) modifications were between \$5,000 and \$10,000, and fifty-seven (57) modifications were less than \$5,000.



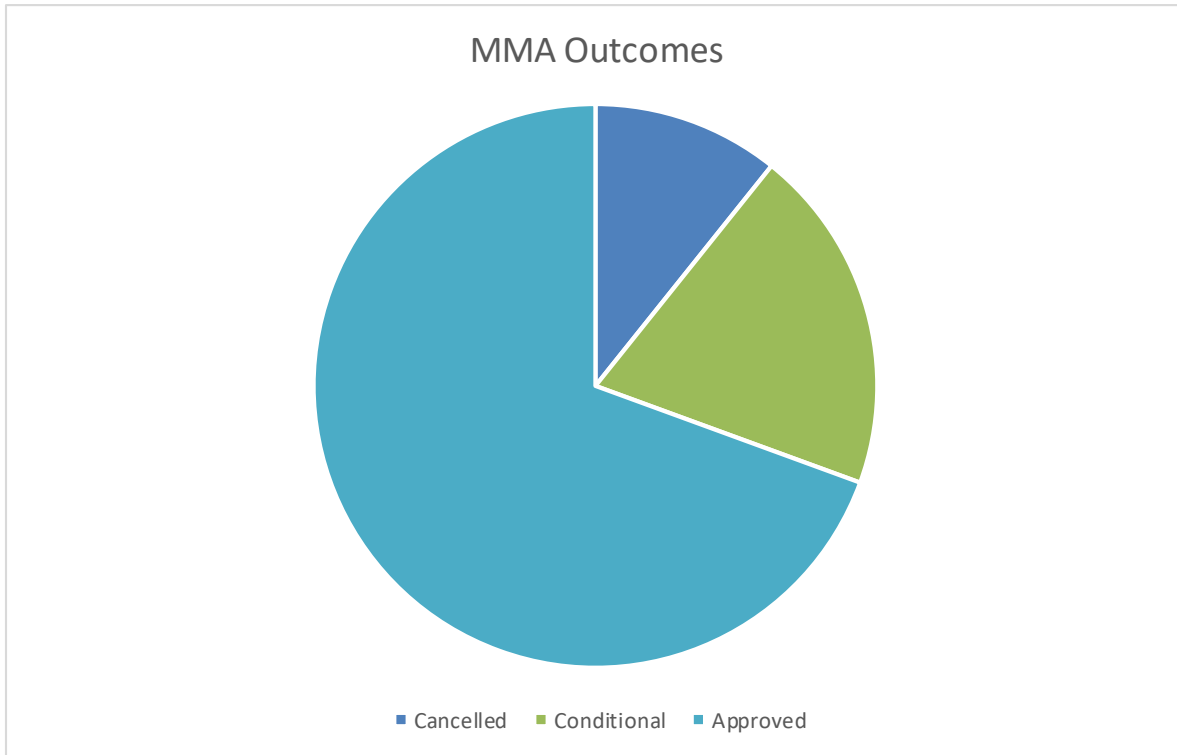
² The CAISO tariff requires that “The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment.” These values include MMAs where the CAISO received no invoice from the Participating TO.

Of the 122 modifications, twenty-four (24) required a Facility Reassessment following the modification assessment. Of these, fifteen (15) modifications resulted in costs greater than \$10,000, eight (8) modifications were between \$5,000 and \$10,000, and one (1) modification was less than \$5,000.



2.2 MMA Outcomes

Of the 122 MMAs in 2023, 85 were approved, 24 were approved with conditions, and 13 were cancelled.

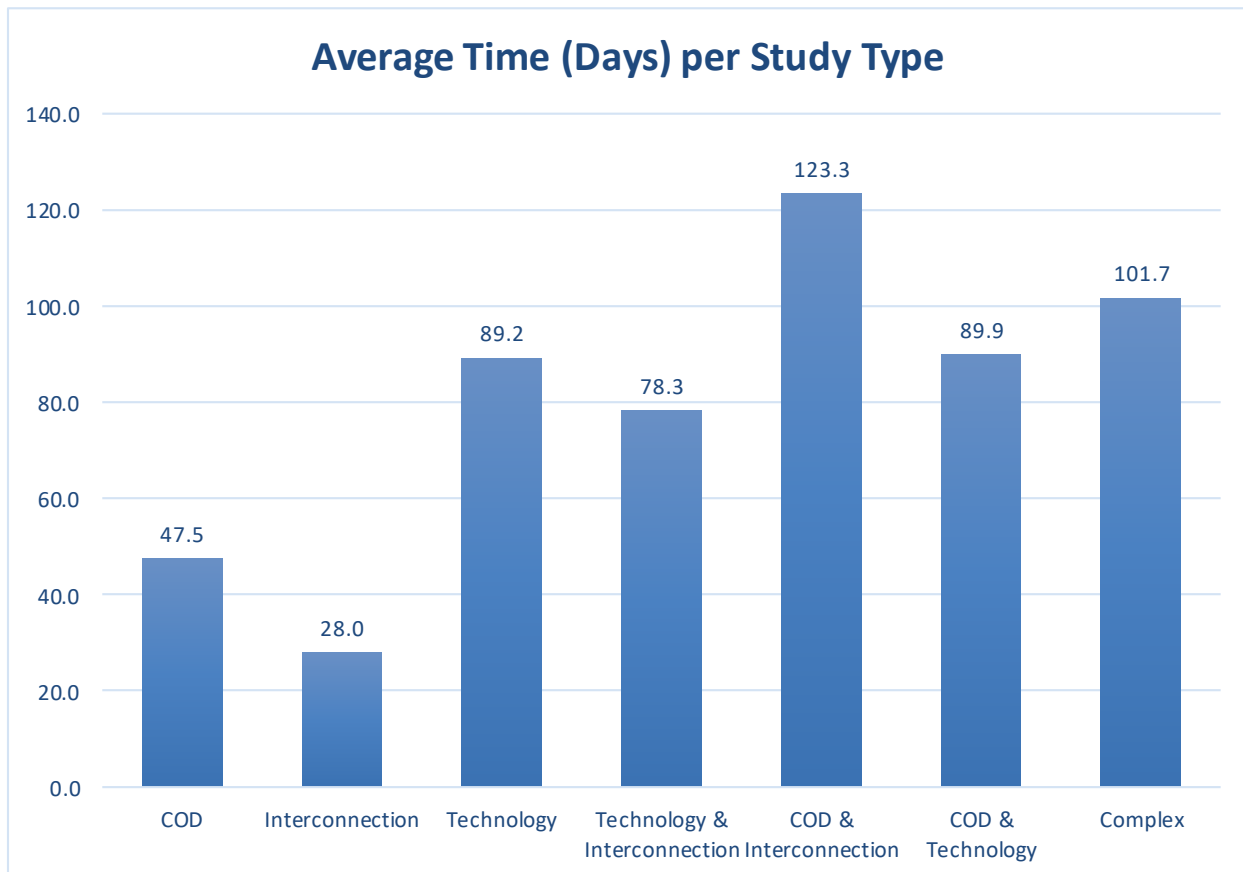


Modifications approved with conditions are actions required of the Interconnection Customer after the results of the MMA are published. For example, a condition may require the execution of the Generator Interconnection Agreement or an Amendment to the Generator Interconnection Agreement by a certain date. Other conditions may apply on a case-by-case basis.

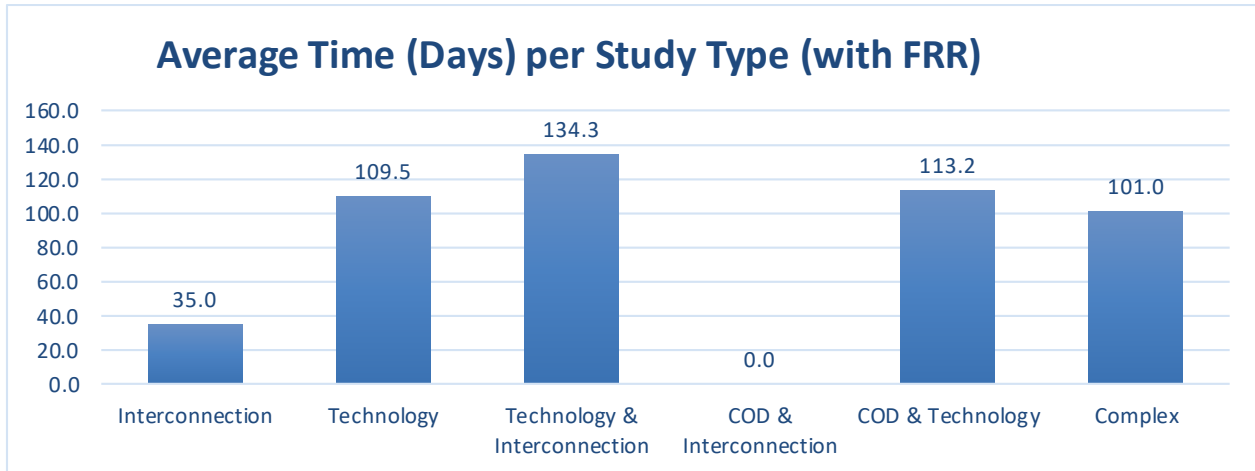
2.3 MMA Average Study Times

Of the 109 MMAs completed in 2023, the average time in the process varied depending upon the complexities of the request. The time starts on the date in which the last Interconnection Request is submitted by the Interconnection Customer that is ultimately deemed valid and ends on the date in which the CAISO publishes the MMA results to the Interconnection Customer.

In 2023, the average time (in days) per completed study in 2023 was sixty-eight (68) days. The longest modification assessment was 297 days. The shortest modification assessment was nine (9) days. Thirty-one (31) required more than ninety (90) days to complete, thirty-three (33) required less than ninety (90) days and greater than forty-five (45) days, and forty-five (45) were completed in forty-five (45) days or less.



Of the 109 modifications, twenty-five (25) required a Facility Reassessment following the modification assessment. Of the twenty-five (25), eight (8) were completed in ninety (90) days or less. Otherwise, seventeen (17) of the twenty-four (24) more than ninety (90) days to complete.



Of the ninety-seven (97) modifications that did not require Facility Reassessments, the average time (in days) per study in 2023 was 105 days. The longest modification assessment was 286 days. The shortest modification assessment was nine (9) days. Seventeen (17) required more than ninety (90) days to complete, thirty-five (35) required less than ninety (90) days and greater than forty-five (45) days, and forty-five (45) were completed in forty-five (45) days or less.

