
 California ISO	Operations	ISO Version:	1.6
Fieldwork Guide		Effective Date:	8/02/2018




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REVISION HISTORY

VERSION NO. <small>(Must match header)</small>	DATE	REVISED BY	DESCRIPTION
1.0	6/6/2016	EDAS	Created Document
1.1	6/29/2016	EDAS	Updates to include all Meter Work and instruction
1.2	8/29/2016	EDAS	Included additional details pertaining to Meter Reprograms
1.3	9/13/2017	EDAS	Updated verbiage
1.4	4/15/2018	EDAS	Updated procedures for RIMS and EDAS Request Tool
1.5	7/16/2018	EDAS	Updated procedure for RIMS project details form
1.6	8/02/18	EDAS	Updated procedure for RIMS project details form

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INTRODUCTION


The purpose of this document is to provide guidelines relevant to the procedures required when performing meter fieldwork.

Preparation

All meter work will require an ISO Project Code and therefore the submittal of a Project Details Form to RIMS. One Project Code is required per Device.

- **Opening a New Meter Project with NRI**

- The NRI Guide and Checklist can be found online at:
 - <http://www.caiso.com/participate/Pages/NewResourceImplementation/Default.aspx>
- Obtain a new project registration code via the [RIMS public site](#) and follow the links provided in the registration email.
- A link to the latest Project Details Form version will be provided in the registration email.
- Complete the RIMS Project Details Form
 - New Resources coming into the ISO
 - Project Details form must be completed in its entirety
 - Meter Replacements, Reprograms and Maintenance
 - Section 1:
 - For Meter Replacements – Select “Meter Replacement” from the drop down menu
 - For Meter Maintenance, Meter Reprogram, Re-Inspection or Communication Change – Select “Meter Maintenance” from the drop down menu
 - Section 2: Complete Parts A through G
 - Part F: Please enter the site name as listed on the Meter Service Agreement (MSA). NOTE: The system will not accept an exact name match, you may receive an error requesting a revision in name. (Adding a phrase at the end may help, for example: Power Powerhouse Maintenance)
 - Part G: Please include the Device ID in the project description
 - Sections 3: Complete parts A-C
 - Section 6: Complete Part A (Date expected to complete the work)
 - Section 7: Complete Parts A through C
- Save, upload and submit the Project Details Form in Word .docx format to [RIMS](#) using the registration code to access.

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- ❑ You will receive an email with the project code, the User Access Administrator will need this project code in order to provision access for RIMS Users for this project in RIMS.
- ❑ The NRI project code will be the number you will use to upload your documents to NRI utilizing the proper file naming conventions outlined in the New Resource Implementation Guide.

EDAS REQUEST TOOL

All Revenue Meter and Real Time Device fieldwork must be scheduled with Energy Data Acquisition Systems (EDAS) through the [EDAS Request Tool](#).

Requirements

The following requirements must be met:


- An appointment is required to perform any fieldwork related (Real Time Device and/or Metering) activities.
- Outage(s) must be scheduled in advance through the Outage Management System (OMS).

Note: No exceptions, unless the work in question is deemed an emergency by the ISO to support the operation of the grid.

Appointment Availability

All related fieldwork shall be performed during normal business hours.

- Monday – Thursday, 08:00 AM to 12:00 PM, 13:00 PM to 16:00 PM
- Closed daily for lunch from 12:00 PM to 13:00 PM

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Request Form

The Online Request Form is used to associate your Project Code to a Device. Each Device must have its own approved request. Once a Project Code is associated to a Device, that Project Code can no longer be used for any other devices. For meter replacements, the tool must be used in order to retrieve your replacement Device ID.


1. Contact Details: All fields in this section are required
 - a. Contact Name
 - b. Contact Phone
 - c. Contact Email

2. Details: Certain fields are required based on the Request Type selected
 - a. Resource Name is required
 - b. Request Type is required. Based on the Request Type, blue text will appear below the drop down to indicate what fields are required. Note that only a single Resource ID, Device ID or Project Code will be accepted.

Request Type drop down provides two types of selections, prefixes are: "Test -" and "Request -"

- i. When selecting "**Test -**" in the Request Type drop down you must enter a desired test date. You will receive an email if the requested date is available. If your requested date is not available, you will receive an email with the next 3 available dates. The 3 available dates may only be available for a short time; please resubmit a request with one of the 3 dates immediately to assure that you can reserve the desired testing date. After the testing date is reserved, a final confirmation email with the testing date and time will be sent.

- ii. When selecting "**Request -**" in the Request Type drop down you will receive an email attachment of the form that was requested, filled out with current CAISO data if available. In addition, we will use the desired test date that you have entered to create a fieldwork appointment. If the date is unavailable you will receive the next 3 available dates. If you would like to request a **form only**, leave the desired test date **blank**.

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EXAMPLE OF COMPLETED FORM

Contact Details

Contact Name *

Contact Phone *

Contact Email *

Details

Resource Name *

Request Type *
Required: NRI Project Code, Resource ID and Device ID being replaced

NRI Project Code

Meter Device ID or RIG Name
Specify a single Meter Device ID or RIG Name

Resource ID

Description of Work
Provide detailed description of work and provide any additional Device IDs, if any, for meter work

Desired Test Date
Select a desired test date. Leave blank for form request only


List of Work Type

- Test - New Site Point to Point
- Test - Meter Replacement
- Test - Meter Maintenance/Troubleshooting
- Test - RIG Replacement
- Test - RIG Certificate Renewal
- Test - RIG Maintenance/Troubleshooting
- Request - Calendar Date
- Request - MSVS Form
- Request - Meter Replacement MSVS
- Request - Meter Maintenance Form

If you need to include additional information, please add it to the Description of Work field.

For "Test -" type, a date is required for an appointment. For "Request -" type, for a form only request leave blank. For "Request -" for a form & test date, date is required.

Click on Submit Request

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The requester shall be able to view the summary page after the preferred appointment date and time has been submitted. Additionally, a confirmation email will be sent to the submitter for reference.

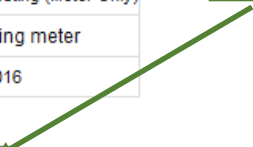
If the submitter would like to schedule another appointment, there is an option at the bottom of the screen to perform this function.


Hello Jane Smith,
 Your field work appointment request has been submitted successfully, you will receive a confirmation email at the same time.

Request Details:	
<i>Request ID</i>	714
<i>Site Name</i>	Test company
<i>Contact Name</i>	Jane Smith
<i>Contact Phone</i>	9161234597
<i>Contact Email</i>	jsmith@test.com
<i>Internal ISO #</i>	16GEN9999
<i>Device ID</i>	5999999
<i>Resource ID</i>	XXXXXX_2_XXXXX
<i>Type of Work</i>	Meter Testing (Meter Only)
<i>Description of Work</i>	Replacing meter
<i>Desired Test Date</i>	09/13/2016

Option to schedule additional appointments

Submit another request



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METER FIELDWORK

New Installations, Meter Replacements or Programming changes which will impact the ISO's Meter interrogation software require a Meter Configuration Worksheet to be uploaded to RIMS and accepted at least 5 business days prior to the appointment.

For a Meter Replacement, submit a request via the EDAS Request Tool. The New Device ID will be provided upon validation.

Prior to starting any work on a meter, the ISO Meter Inspector must contact EDAS, confirm the OMS outage is Active and retrieve Hand Held Files (HHFs) from the meter. If meter work affects real time data to the ISO, periodic updates must be made as instructed by EDAS.

New Installs, Meter Replacements and certain Meter Reprogramming will require a Point to Point test administered by EDAS. EDAS will instruct the ISO Inspector on what values to inject into the meter in both the Load and Generation Directions for MegaWatts and MegaVars.

Upon completion of the work, contact EDAS to confirm communication and/or telemetry is restored and to provide detailed updates on the status of the project.

The proper meter documentation must be submitted to RIMS within 5 business days of the work being completed. Please use the most up to date forms which can be found on our website at:

<http://www.caiso.com/participate/Pages/MeteringTelemetry/Default.aspx>


METERING FORMS

There are 2 Metering Forms, Meter Maintenance and Meter Site Verification Sheet (MSVS).

This section will cover the important fields that will be required to successfully complete and submit the 2 new metering forms.

Review: Once the MSVS form is uploaded and submitted to RIMS, EDAS will review verify and validate the form.

Un-Accepted: If the submitted meter documentation contains any errors, it will be unaccepted. The RIMS User contacts of the project will receive an auto generated email notification from EDAS on the specific errors. Responsible parties shall either make the appropriate corrections to the form or take corrective actions to resolve any issues. RIMS User shall submit an updated version of the MSVS or Meter Maintenance form to NRI using the proper naming convention and versioning. The **Review** and **Accept** or **Un-Accepted** process will continue until a valid metering form is accepted.

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Accept: Once the meter documentation passes validation, it will be accepted. EDAS will route the document (MSVS or Meter Maintenance) to the Installer, Programmer, Inspector, and the Site Owner via DocuSign for signatures. All parties must sign the documents via DocuSign. After the complete execution of the MSVS or Meter Maintenance form, a copy will be available to all signing parties via DocuSign. For New Installs (New Projects coming into the ISO) the MSVS is required as part of meter validation to process the Certificate of Compliance (CoC).

Please submit the MSVS and Meter Maintenance forms in Microsoft Word Format. PDF formats will not be accepted. Signatures are accepted only through DocuSign.

For Helpful Hints, select the desired field on the form and press F1. A popup window will appear with a description and/or instructions for that field.

Fields and Definitions

New Install: Meters in which the Site has not achieved ISO Commercial Operation.


Meter Replacements: Existing ISO Meter is replaced with a new meter.

Meter Reprogram: Any changes to the meter programming to include but not limited to: addition or removal of a DCF, Line and/or transformer loss changes, Multiplier changes etc. *NOTE (if Reprogramming requires changes to the ISO's Revenue Quality Meter Data System, such as a meter changing from a 4ch to 6ch, 6ch to 4ch, changes to the Meter Multiplier and/or Pulse Multiplier will require a New Device ID to be assigned by the ISO)*

Meter Maintenance: Calibration, Battery Replacement, Troubleshooting etc.

Communication Changes: Changes to the meter communication such as IP address, Modem Number or Port changes

Re-Inspection: Any changes which result in the reinspection of a meter where it does not constitute reprogramming or equipment changes. For example, removal of non ISO meters within the same circuit of the ISO meter in which no physical or programming changes are made to the ISO meter, however burdens are affected.


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- Project Information:
 - New Meter Device ID: For New Installs and Meter Replacements
 - NRI Project Code: Project Number received from NRI through RIMS
 - Meter Designation: Type of meter selected from dropdown list, i.e. Main, Backup, Aux etc.
 - Meter Name (Optional): Name of the meter, i.e. Gen 1, Gen 2, T1, L1, Feeder 1 etc.
 - Existing Meter Device ID: Required for Meter Replacement, Re-Program or Re-Inspection


- Facility Information:
 - Site Name: Generator Project Name
 - Facility Address, City, State, Zip: Physical address of plant
 - Site Contact Name and Phone: Name and phone number for an individual on site

- CAISO Revenue Metering and Communication Information:
 - Inspection Type: Type of inspection performed selected from dropdown list, i.e. Test – New Site Point to Point, Request - Meter Replacement etc.
Note: Meter Maintenance Form is used for Meter Main
 - Net MW: POR MW
 - Site Aux MW: Aux MW for site
 - Distance to POR: Distance to ISO POR in miles
 - Meter kV: Metered voltage
 - Interconnect kV: Voltage at which site is interconnected
 - Meter Manufacturer: Manufacturer of Meter
 - Meter Model: Model of Meter
 - Meter Serial Number: Serial Number of Meter
 - Form: Meter Form
 - 3W Delta or 4W Wye: Check if 3W Delta or 4W Wye
 - Modem Communication: Check only if the meter is communicating via a dial up connection
 - CAISO Polled Meter: Check if meter is ISO polled

- Instrument Transformer Correction Factors:
 - Enter values if CTs/VTs do not met ISO requirements otherwise leave blank.

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- Tested and Programmed Transformer and Line Loss Compensation Values:
 - Enter both Tested and Programmed losses if transformer and/or transmission line losses are programmed and tested
- Transformer and/or Line Loss & Distribution Compensation Factor (DCF):
 - Loss: Select Yes if losses are programmed in the meter, No if no losses are programmed
 - DCF: If the site qualifies for a DCF, select the appropriate percentage programmed in the meter. If no DCF is programmed select None
- CAISO Revenue Meter Seal Information:
 - Complete any fields applicable with the As Left and/or As Found seal numbers. Enter the seal number in its entirety. If a field is not applicable, leave blank (DO NOT ENTER N/A etc.)
- Voltage and Current Transformer Information :
 - Enter all information for VT and CTs. If a 3 Wire Delta connection, B phase fields should be left blank and any list boxes should remain defaulted to say Select
- Test Standard Information:
 - All Test Standard information is required if a calibration test is performed
- Meter Calibration Test Results and Record:
 - If a meter calibration test is performed, all information is required
- Inspector Information and Final Remarks:
 - Enter detailed description of work.
- Installer, Programmer, Inspector and Site Owner Information:
 - All information for the Installer, Programmer, Inspector and Site Owner are required. DO NOT provide a signature. Emails provided will be used to route the document for signatures via DocuSign.
 - Dates should be in chronological order, i.e. Inspection completion must not be before the Installation or Programming and the date of Owner review completed must not be before the date of Inspection.

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Meter Site Verification Sheet (MSVS)

This section will outline the documentation Requirements of the MSVS

- **New Install and Meter Replacement**
 - Complete the Following Sections
 - All Sections of the MSVS are required: Complete all fields
 - Meter Replacements must include both the New Device ID and Existing Device ID
- **Meter Reprogram or Re-Inspection**
 - Complete the Following Sections
 - Sections 1 through 9: Complete all fields
 - Reprograms must include the Existing Device ID, New Device ID field should be left blank
 - Sections 10 and 11: Complete if applicable
 - Sections 12 and 13: Complete all fields

Upload and submit the completed form to RIMS


File Naming convention should be as follows:

(Project Code) MSVS (Device ID) ver(#)

Example:

16GENXXXX MSVS 590000 ver1

16METERXXXX MSVS 2900000 ver1

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Meter Maintenance Form

This section will outline the documentation Requirements when meter maintenance is performed on a Certified ISO Meter.

- **Meter Maintenance**
 - Complete the Following Sections
 - Sections 1 through 3: Complete all fields.
 - Sections 4 through 6: Complete if applicable
 - Section 7: Complete any applicable seal changes
 - Sections 8 and 9: Complete all information if meter was tested. If not tested, leave all information blank
 - Sections 10 and 11: Complete all information
- **Communication Change**
 - Complete the following Sections
 - Section 1, 2 and 3: Complete all fields.
 - Section 4, 5 and 6: Leave as is (Not applicable)
 - Section 7: Complete any applicable seal changes
 - Section 8 and 9: Leave as is (Not applicable)
 - Section 10: Remarks section is required to describe the work and changes completed
 - Section 11: If no inspection was required, complete only Site Owner Information

Upload and submit the completed form to RIMS

File Naming convention should be as follows:

(Project Code) Meter Maintenance (Device ID) ver(#)

Example:

16METERMTXXXX Meter Maintenance 5900000 ver1