



Metering and Telemetry

Energy Data Acquisition Specialist (EDAS)

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Interconnection Process Map

You are here



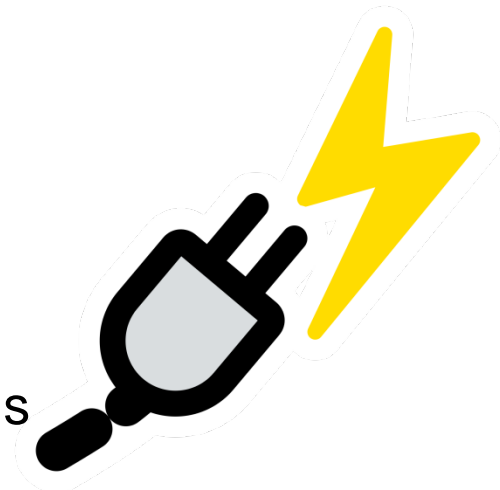
Topics

- What is EDAS?
- Bucket Items
- Meter Projects
- Meter Documentation
- Upcoming Changes
- SCME Vs. ISOME



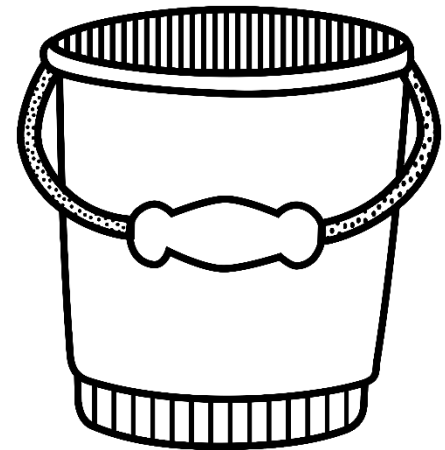
What is EDAS?

- Energy Data Acquisition Specialist Team (**EDAS**) is responsible for engineering requirements and standards for:
 - Revenue Metering via:
 - Approved CAISO Meters
 - CAISO Inspected and Certified
 - CAISO Meter data processing
 - Settlement Quality meter data (SQMD) plans
 - Direct Telemetry via:
 - Distributed Network Protocol (DNP) devices



Bucket Items

- Bucket 1
 - Single and Three line drawings
 - Device IDs generated after acceptance of these documents.
 - A Few Helpful Hints:
 - CAISO Meters clearly labeled.
 - Drawings have Professional Engineer stamp.
 - Communications Block Diagram
 - A Few Helpful Hints:
 - No Word document format submittals
 - Remote Intelligent Gateway (RIG) Details Form.
- NOTE: Use the EDAS drawing checklists on our website to ensure all requirements are met BEFORE submission to ensure EDAS approval.



Bucket Items (Cont.)

- Bucket 2 – Meter Configuration Worksheet
 - Provides Meter configuration details to the CAISO
- Bucket 3 –
 - 24/7 Contact Form
 - Certification Practice Statement for Basic Assurance Certification Authority (CPS) Agreement
 - Energy Communications Network (ECN) Agreement
- Once Buckets 1 thru 3 are Complete
 - Site Schedules Point to Point testing

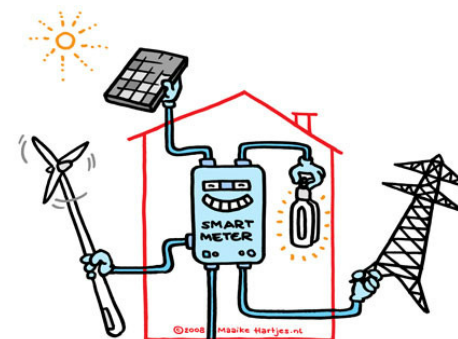
Bucket Items (Cont.)

- Bucket 5 –
 - Meter and Site Verification Sheet (MSVS)
 - Point of Receipt (POR) Calculation (If applicable)

- EDAS Commercial Operation Date(COD)
 - Metering (CAISO Polled Meters)
 - Certificate of Compliance(COC)
 - Issued after Bucket 5
 - Meter must have valid actual recorded data.
 - Telemetry
 - 72 hour communications check

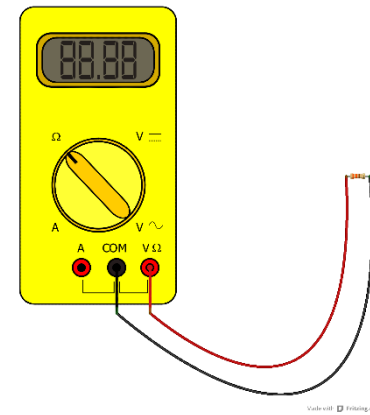
Meter Projects

- Separate NRI Projects per Device ID
 - Meter Replacements
 - New Device ID will be issued
 - Meter Configuration worksheet and MSVS are required
 - Meter Maintenance e.g. Annual Meter Testing
 - Meter Maintenance or MSVS is required (*depending on the type of work being completed)
- MSVS and Meter Maintenance forms must be submitted within **5 Business days** of meter inspection (Metering BPM 3.2.3.5)



Meter Documentation

- Documents will be sent using DocuSign for signatures
- Meter documents should be signed in DocuSign within 5 days
- Meter seals are validated on meter documentation
- Link to the Fieldwork Guide on the Helpful Links slide



EDAS Request Tool

- Single RIMS project per Device ID
(*Exception: new onboarding projects)
 - If two meters require annual meter maintenance; two RIMS projects must be created and two fieldwork appointment requests will be needed.
- Used to schedule Fieldwork Appointments and request pre-populated metering documents
- Shows available dates based on work type
- Upon approval, associates Device IDs to RIMS projects

Fieldwork Appointments

The below information may be required:

- NRI Project Code (Example: 17GEN1234)
 - Required for Meter Fieldwork, New Site Point to Point, RIG Replacement
- Device ID
 - ISO Meter (Ex: 5914123)
 - Required for Meter Fieldwork
 - RTU Name (Ex: IRG123)
 - Required for RIG Fieldwork
- Resource ID (Ex: INVSBL_3_TESTG1)
 - Always required

Disclaimer: A confirmed fieldwork appointment must be accompanied by an OMS outage. Please schedule an appropriate OMS outage once you have received a confirmed fieldwork appointment. Inaccurate information will cause your appointment request to be delayed.

Contact Details

Contact Name *

Contact Phone *

Contact Email *

Details

Resource Name *

Request Type * -Select-

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

Date	Work Types Available
2/25/2019	New Site Point to Point Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
2/28/2019	Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/4/2019	Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/5/2019	Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/6/2019	Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/7/2019	New Site Point to Point Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/11/2019	New Site Point to Point Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/12/2019	RIG Certificate Renewal Maintenance/Troubleshooting
3/13/2019	RIG Certificate Renewal Maintenance/Troubleshooting
3/14/2019	New Site Point to Point Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting
3/18/2019	New Site Point to Point Device Replacement RIG Certificate Renewal Maintenance/Troubleshooting

Work Type

- Test
 - Request a Test Date
- Request
 - Request a Meter Form and a Test Date
 - Request a Meter Form Only*

Contact Details


Contact Name *

Contact Phone *

Contact Email *

Details

Resource Name *


Request Type * 

NRI Project Code

Meter Device ID or RIG Name

Resource ID

Description of Work

Desired Test Date 

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

Please describe description of work and provide any additional Device IDs, if any, for meter work

**Do not enter a Date*

ISO Metered Entity (ISOME) Vs SC Metered Entity (SCME)

- ISOME: The CAISO directly polls the meters, and the ISO performs the validation, estimation and editing to produce Settlement Quality Metered Data (SQMD).



- SCME: The Scheduling Coordinator polls the meters, performs the validation, estimation and editing and submits the resulting SQMD to the CAISO.



Metering Rules Enhancement

- Expanded the SCME option to
 - Participating Generators
 - Qualifying Facility
 - Metered Subsystem
 - Utility Distribution Company
 - Tie Point meters
 - EIM entities.
 - ❖ *Metering BPM Section 6.2*
- Enabled market participants to forego certain costs associated with ISOME
 - Installing ISO Approved meters is not required
 - ISO Metering Inspection services are not required

SCME Requirements

- SQMD plan
 - must be approved before the SC can submit the bids.
 - represent Meter configuration, Calculation of the meter data, data collection, audit and test performed
 - Must meet Local Regulatory Authority requirements
 - Or ISO requirements
- Must follow the NRI Process (Not RIMS).
- Documents: SQMD Template and Single Line Drawing.
- Updated SQMD plan must be submitted when there are modifications to a already approved SQMD plan.

SCME Project

- New Project with SCME metering
 - ✓ New Resource ID – 203 Days FNM Build process.
 - ✓ File naming convention 18GEN1234 SQMD MeterConfig Ver1
- Conversion (ISOME to SCME)
 - ✓ With Telemetry – 203 Days FNM Build process.
File naming convention 18RIG1234 SQMD MeterConfig Ver1
 - ✓ Without Telemetry – 40 Days
File naming convention 18SCME1234 SQMD MeterConfig Ver1

SQMD Plan Resources

- SQMD Template
- SQMD Template Tutorial
- Operating Procedure 5750

Settlement Quality Meter Data (SQMD) Plan Template	
Participation:	
<input type="checkbox"/> CAISO Balancing Authority Area (BAA) <input type="checkbox"/> Energy Imbalance Market (EIM) NRI Project # <input type="text"/>	
<input type="checkbox"/> New Scheduling Coordinator Metered Entity (SCME) <input type="checkbox"/> Repower <input type="checkbox"/> Modification to Meter Data Interval <input type="checkbox"/> Add Generation Capacity <input type="checkbox"/> Conversion (CAISOME to SCME) <input type="checkbox"/> Modification(s) Only (Existing; Prior Approval obtained)	
<i>Any existing SQMD Plan Template that has been previously "approved" that will be affected by any selection captured above i.e. DLAP/ELAP will need to be resubmitted for CAISO approval using the Modification(s) Only.</i>	
Contact Information:	
Name: <input type="text"/>	Title: <input type="text"/>
Phone Number: <input type="text"/>	Email Address: <input type="text"/>
Market Resource Attributes:	
Resource Type: Select Resource Type	If Intrastate, was an agreement obtained? <input type="checkbox"/> Yes <input type="checkbox"/> No
Market Resource ID: <input type="text"/>	Effective Date: <input type="text"/> Scheduling Coordinator ID: <input type="text"/>
<i>EIM Only:</i> Physical Balancing Authority (BA) Location: <input type="checkbox"/> Internal <input type="checkbox"/> External; Associated BA <input type="text"/>	
Format for Data Submission (Tariff Section 10.3.2.2):	
Interval Size <input type="checkbox"/> 5-min <input type="checkbox"/> 15-min <input type="checkbox"/> 60-min	
Unit of Measure (UOM) <input type="checkbox"/> kWh <input type="checkbox"/> MWh	
SQMD Plan (Tariff Section 10.3.7.1):	
Calculation(s)/Algorithm(s): Please identify all metering devices including supporting algorithms and/or calculations used to produce settlement quality meter data (SQMD) affiliated with the market resource ID. <input type="text"/>	
<i>Single Line Diagram (SLD) with professional engineer stamp (or equivalent) depicting the physical elements and relationships among the metering device(s) is required (excluding "Load" resource type). SLD must be submitted as a separate document.</i>	
Meter Data Processing: Please describe the processes associated with the collection, validation, and submission of SQMD. <input type="text"/>	
Audits and Tests: Please provide plans and schedules associated with metering devices in support of quality assurance. <input type="text"/>	

Helpful Links



- Certification of Metering Facilities

<http://www.caiso.com/Documents/5710.pdf>

- Meter Data Acquisition and Processing Procedure

<http://www.caiso.com/Documents/5740.pdf>

- Appointment Scheduling for EDAS Fieldwork

<http://www.caiso.com/fieldworksupport/Pages/default.aspx>

- Direct Telemetry BPM

<https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Direct%20Telemetry>

Helpful Links (Cont.)

- EDAS request tool

<http://www.caiso.com/fieldworksupport/Pages/default.aspx>

- Fieldwork Guide

<http://www.caiso.com/Documents/FieldworkGuide.pdf>

- RIG Acceptance Test (RAT) Procedures

http://www.caiso.com/Documents/RIGAcceptanceTest_RAT_Procedures.pdf

- RIG/DPG Validation Procedure

http://www.caiso.com/Documents/RIG_DPGValidationProcedure.pdf

- Metering Exemptions from Compliance

<http://www.caiso.com/Documents/5730.pdf>

Helpful Links (Cont.)

- BPM for Metering

<http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Metering>

- SQMD Template

<http://www.caiso.com/Documents/SQMDPlanTemplate.docx>

- SQMD Template Tutorial

<http://www.caiso.com/Documents/SQMDResourceTemplateTutorial.pdf>

- Operating Procedure 5750 – Submission and Approval Process

<http://www.caiso.com/Documents/5750.pdf>

- EDAS Document Checklists

<http://www.caiso.com/Documents/Checklist-CommunicationBlockDrawing.pdf>

<http://www.caiso.com/Documents/Checklist-MeteringAndRIGDrawingRequirements.pdf>

EDAS Contact Information

➤ EDAS:

- CIDI Inquiries
- Fieldwork Phone: (916) 608-5826
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➤ EDAS Team:

- Priyanka Namburi
- Mike Ucol
- David Acevedo
- Vanessa Klapow
- Marissa Arechavaleta



Thank you!

If you have any further questions, please send them to
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