



Metering and Telemetry

Energy Data Acquisition Specialist (EDAS)

Denis Korneyenko

Priyanka Namburi

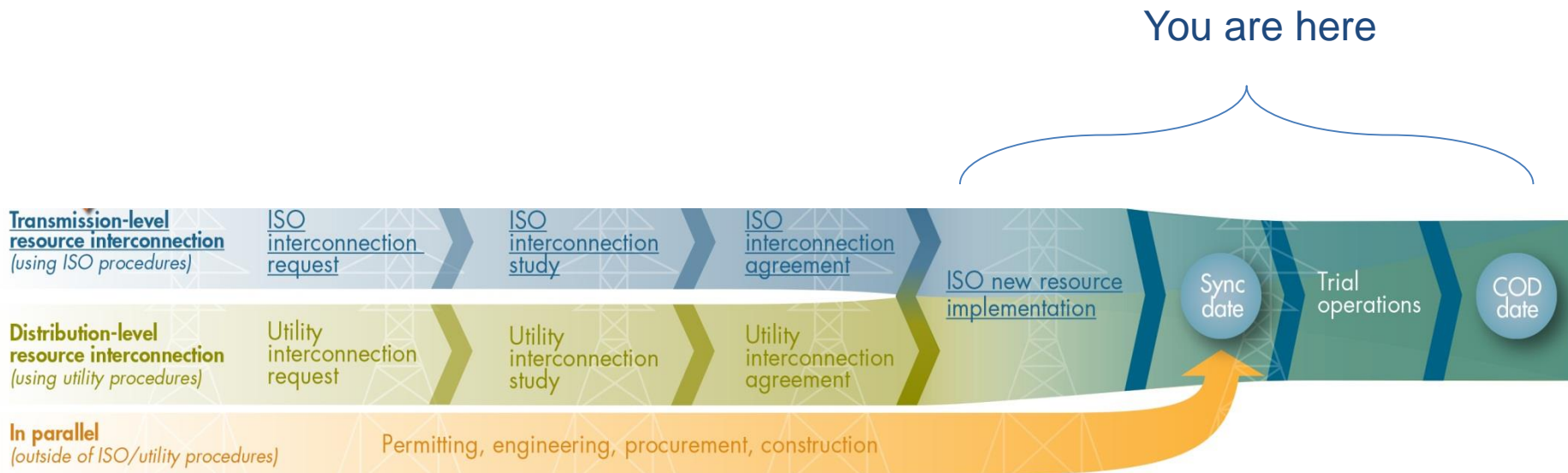
March 11, 2020

Topics

- What is EDAS?
- Fieldwork Projects
- EDAS Request Tool
- Telemetry Non-Compliance
- Hybrid Projects

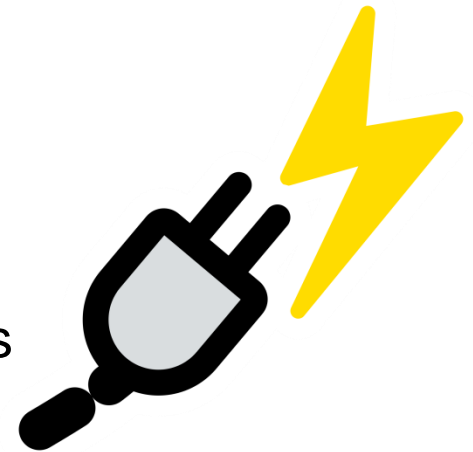


Interconnection Process Map



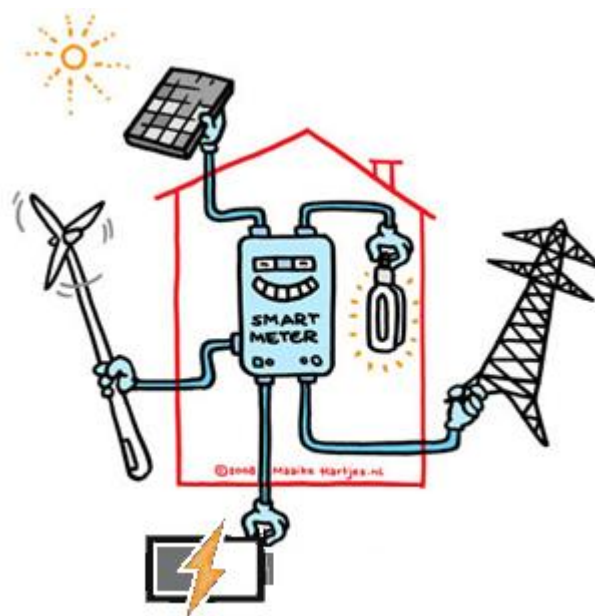
What is EDAS?

- 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



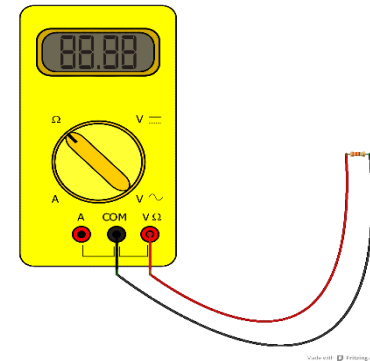
Fieldwork Projects

- Opening an NRI Project for Fieldwork
- Meters
 - Maintenance
 - Replacements
 - Reprogram
 - Communication change
- Real Time Devices
 - Replacements
 - Reconfiguration to Points List
 - Communication change or adding backup IP address



Fieldwork Projects (Cont.)

- Meter and Site Verification Sheet (MSVS) and Meter Maintenance forms should be submitted within **5 Business days** of meter inspection
 - Meter seals are validated on meter documentation
- Meter Documents will be sent using DocuSign for signatures
- Meter documents should be signed in DocuSign within 5 Business days



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)
- 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 *

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

Telemetry Non-Compliance

- Telemetry BPM Section 8.4
- Loss of Telemetry emails
 - Resource Owner is responsible to expeditiously investigate and resolve the issue
 - Or request a Telemetry exemption from the ISO for providing the telemetry data
- Deadlines:
 - (5) Business days after notification of the telemetry issue for resources ≥ 45 MW's.
 - (14) Business days after notification of the telemetry issue for resources < 45 MW's.

Telemetry Exemptions (Cont.)

- (72) consecutive hours of good quality to be considered resolved
- Submit Telemetry Exemption requests to EDAS
- Scheduling Coordinator must contact the CAISO Real Time Generation Dispatcher to update the plant output
- Refer to Telemetry BPM Section 8.4 for guidelines on providing Telemetry value updates.

Hybrid Projects

Terms and Definitions:

- **Hybrid Resources:**
 - CAISO refers to hybrid projects or hybrid resources as a combination of multiple technologies or fuel sources combined into a single resource with a single point of interconnection
- **CAISO Metered Entity: CAISO ME (or ISO ME)**
 - Pursuant to Tariff Section 10.1, an eligible entity that has elected that the CAISO will collect and process its Revenue Quality Meter Data directly from CAISO certified revenue quality meters
- **Scheduling Coordinator Metered Entity: SCME**

Pursuant to Tariff Section 10.1, an eligible entity that has elected that its Scheduling Coordinator will process and submit its Settlement Quality Meter Data to the CAISO

Metering and Telemetry

- A meter is needed for each resource ID.
- Additional Meters may be required for WREGIS reporting purposes and to measure Battery Charging and Discharging.
- Telemetry data is required for both fuel types for Grid reliability.
- However, CAISO will issue dispatch instructions to the Single Resource ID.

Two or more resource IDs with all charging options

- With two or more resource IDs for a combined generating facility, each generating unit will be separately metered and telemetered
- CAISO would issue separate dispatch instructions to each resource ID
- All settlements for the project will be at point of delivery, based on metered output to the CAISO controlled grid as adjusted for losses, at five-minute intervals

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
- Email: edas@caiso.com

➤ **EDAS Team:**

- Priyanka Namburi
- Mike Ucol
- David Acevedo
- Denis Korneyenko
- Vitaliy Daniliuk



Questions?

Thank you!

If you have any further questions, please send them to
RIF@caiso.com