
 California ISO <i>Shaping a Renewed Future</i>	Operations	ISO Version:	1.1
Meter Configuration and RIG Details Checklist		Effective Date:	3/25/2015




Meter Configuration and RIG Details Checklist

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REVISION HISTORY

VERSION NO. <small>(Must match header)</small>	DATE	REVISED BY	DESCRIPTION
1.0	2/25/2015	MU	Created Document
1.1	8/16/2016	MU	Updated requirements in conjunction with new Meter Configuration Worksheet and RIG Details Form
1.2	10/25/2017	MU	Updated to add tech notes for Nexus 1500+

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Introduction

The intent of this document is to serve as a guide when submitting Meter and RIG Worksheets.

*All drawing submittals must be emailed to New Resource Implementation (NRI) at nri@caiso.com and follow the proper naming convention as outlined in the NRI Guide.

Meter and RIG Worksheets must be submitted to CAISO via New Resource Implementation (NRI) at nri@caiso.com at least 10 business days prior to the scheduled Test Date. (Meter Replacements and/or Synchronization)

Meter Configuration Worksheet

Project and Facility Information

All Project, Site and Facility information must be complete and accurate


- Meter Device ID
- Internal ISO Number. (Project Number)
- Meter Designation (Select from drop down list)
- Site Name
- Owner
- Facility Address
- Site Contact's Name
- Site Contact's Phone No.
- Load/Standby Provider (Load Servicing Entity)
- CAISO or Provider Submitting Load (Select from drop down list)
- Nameplate MW

CAISO Revenue Metering and Communication Information

- Meter Manufacturer
- Meter Model
- IP Address/Phone
- Port/Baud (CAISO only supports 4000 series ports and port 7700)

Interval Data Recorder Information

- Display Constant
- Primary Ke
- MV-90 Seq.

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Meter Tech Notes

General


The ISO has specific parameters in which meters must be configured to communicate with the ISO's Revenue Meter Data Acquisition and Processing System (RMDAPS)

- The ISO only supports meter communication via the 4000 series ports and port 7700.
- Public IP connections are supported via port 7700
- Meters should not be configured in DST

Schneider ION 8600 Series Meters

In order to for CAISO to communicate Time Sync and Time Set functions with ION 8600 Meters (TCP/IP), the clock settings must be configured in the following manner:

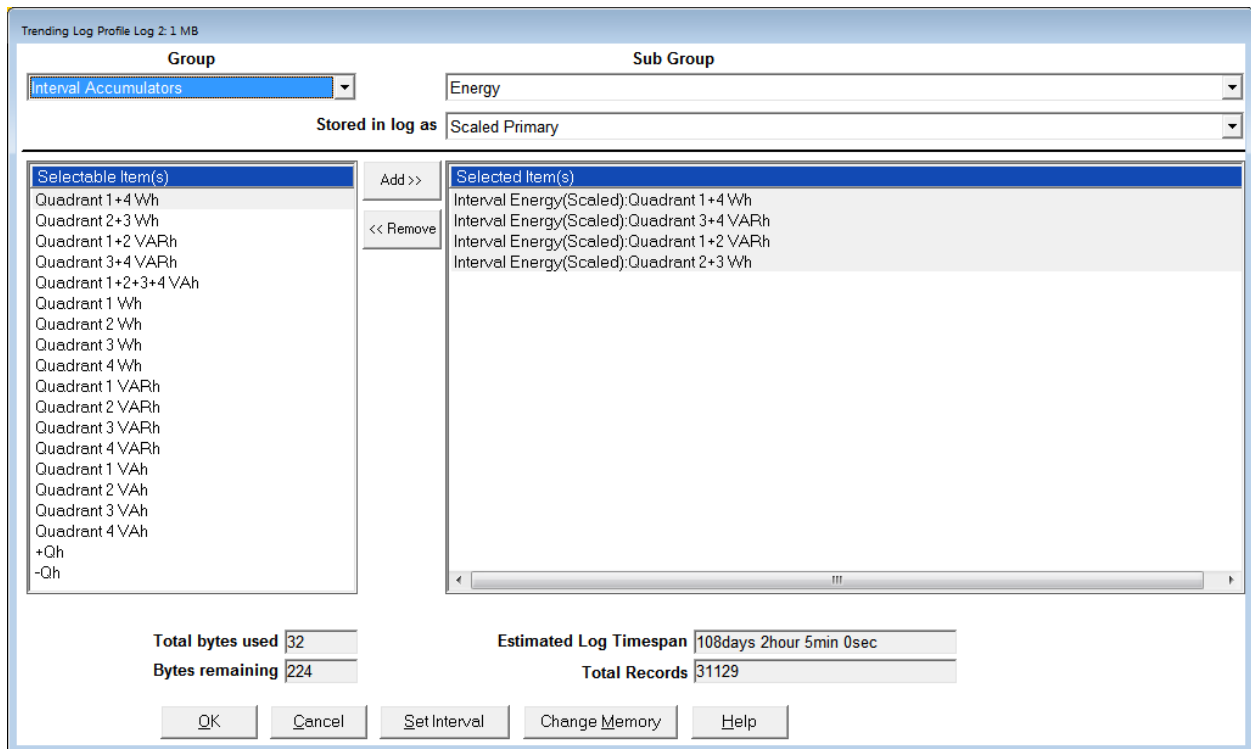
- CL1 Clock Source: Preferably Internal
- CL1 Time Sync Source: Ethernet – ION
- NTP Disabled
- If INSERT OUTAGE RECORDS register is set to YES – ZERO FILL ENABLED, the LogMode register must be set to HIGH SPEED CONTINUOUS

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Nexus 1500+

The following are tech notes for programming the Nexus 1500+ meter.

- The Device Profile should be configured to use Trending Log 2 to record the 4 Energy Interval values (4CH setup). These values are selected from the Interval Accumulators Group and Energy Sub-Group.
 - o Interval Energy (Scaled): Quadrant 1+4 Wh
 - o Interval Energy (Scaled): Quadrant 3+4 VARh
 - o Interval Energy (Scaled): Quadrant 1+4 VARh
 - o Interval Energy (Scaled): Quadrant 1+4 Wh



Trending Log Profile Log 2: 1 MB


Group: **Interval Accumulators** Sub Group: Energy

Stored in log as: Scaled Primary

Selectable Item(s)	Add >>	Selected Item(s)
Quadrant 1+4 Wh Quadrant 2+3 Wh Quadrant 1+2 VARh Quadrant 3+4 VARh Quadrant 1+2+3+4 VAh Quadrant 1 Wh Quadrant 2 Wh Quadrant 3 Wh Quadrant 4 Wh Quadrant 1 VARh Quadrant 2 VARh Quadrant 3 VARh Quadrant 4 VARh Quadrant 1 VAh Quadrant 2 VAh Quadrant 3 VAh Quadrant 4 VAh +Qh -Qh	Add >> << Remove	Interval Energy(Scaled):Quadrant 1+4 Wh Interval Energy(Scaled):Quadrant 3+4 VARh Interval Energy(Scaled):Quadrant 1+2 VARh Interval Energy(Scaled):Quadrant 2+3 Wh

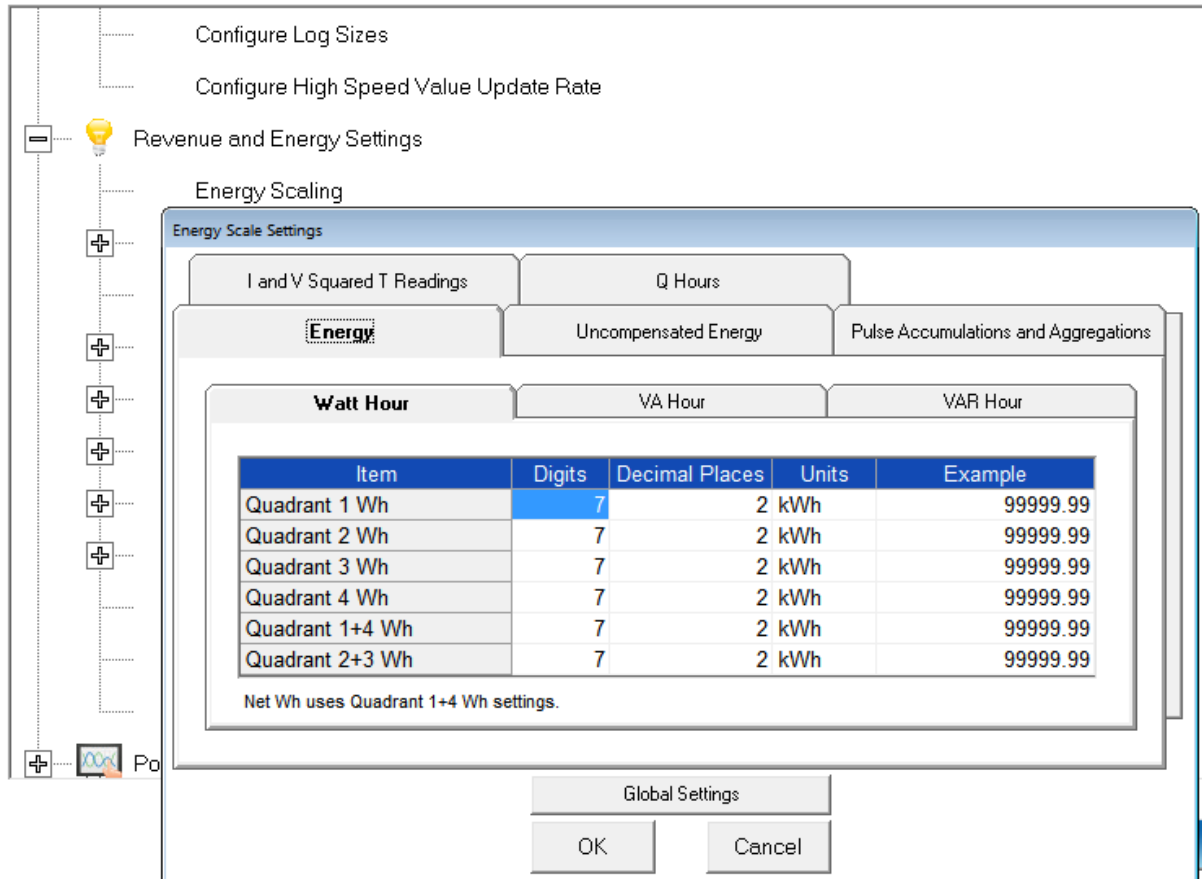
Total bytes used: 32 Estimated Log Timespan: 108days 2hour 5min 0sec

Bytes remaining: 224 Total Records: 31129

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- Energy scaling MUST BE SET to 7 digits with 2 decimal places. This can be accomplished under the REVENUE and ENERGY SETTINGS, ENERGY SCALING.

Device Profile



Configure Log Sizes

Configure High Speed Value Update Rate

Revenue and Energy Settings

Energy Scaling

Energy Scale Settings

I and V Squared T Readings Q Hours

Energy Uncompensated Energy Pulse Accumulations and Aggregations


Watt Hour VA Hour VAR Hour

Item	Digits	Decimal Places	Units	Example
Quadrant 1 Wh	7	2	kWh	99999.99
Quadrant 2 Wh	7	2	kWh	99999.99
Quadrant 3 Wh	7	2	kWh	99999.99
Quadrant 4 Wh	7	2	kWh	99999.99
Quadrant 1+4 Wh	7	2	kWh	99999.99
Quadrant 2+3 Wh	7	2	kWh	99999.99

Net Wh uses Quadrant 1+4 Wh settings.


Global Settings

OK Cancel

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Remote Intelligence Gateway (RIG) Details

- Internal ISO Number (Project Number)
- RIG IP Address
- Router Default IP Address
- RIG Type
- Select if RIG is aggregating with a New or Existing Aggregated RIG (ARIG) (Select from Drop Down list). If not an aggregated RIG then leave defaulted as "N/A"
- If aggregating, enter the Common Name of the Existing RIG or Internal ISO Number if the ARIG is new and in the same model build. If not aggregating then leave field defaulted with "Enter Info Here"
- Communication Type (Select from Drop Down list)

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Real Time Device Tech Notes

General

The ISO has specific requirements and parameters for Real Time Devices.

- Real Time Devices must be capable of DNP3
- The supports Real Time Device communication via port 20000

SEL

- For SSL communication: Certificate requests must be 2048 bit and greater than 3 years