

# **MEA RESIDENTIAL METER READING GUIDE**

**ACLARA I-210+ METERS**

**TYPICALLY USED IN RESIDENTIAL APPLICATION**

**METERING SECTION**

**TECHNICAL SERVICES DEPARTMENT**

2021 EDITION

Revised May 5, 2021

**MEA Meter Reading Guide – Aclara I-210+ Residential Meter**

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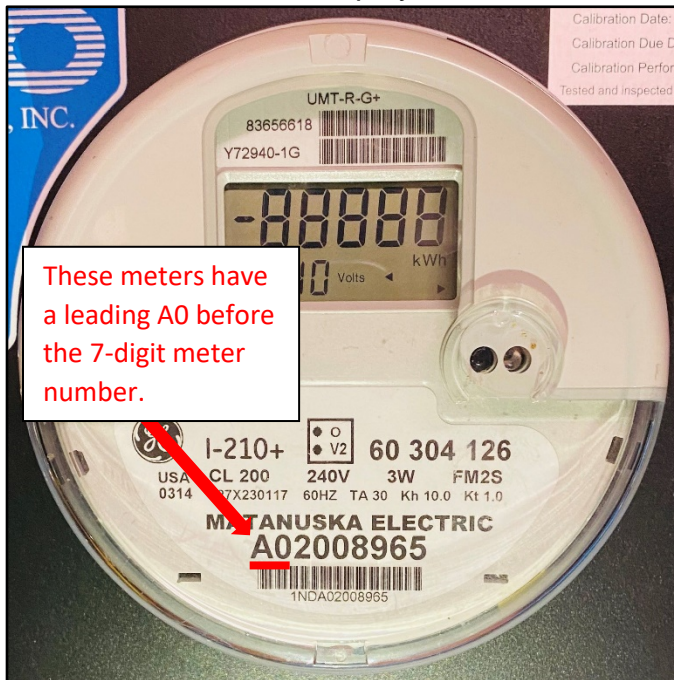
# MEA Meter Reading Guide – Aclara I-210+ Residential Meter

## INTRODUCTION

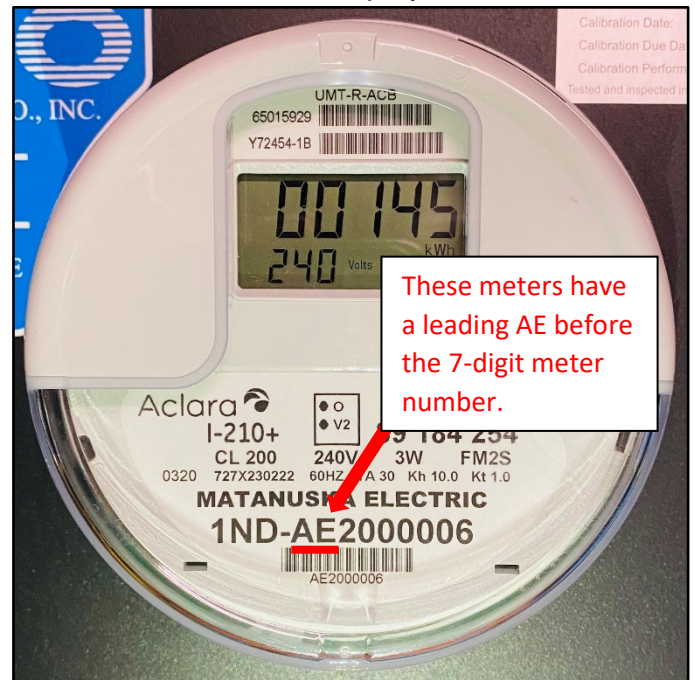
### Overview:

This guide was developed for our members to aid in the reading and understanding their meter display. Note that the meter screens are documented in the proper sequence, but the meter could be on any of the screens in the sequence when viewed. In a typical situation, Aclara I-210+ (residential) type meters are installed at residences and kV2c (commercial) type meters are installed at commercial sites, but there are exceptions where the application requires the opposite type of meter to be installed. Also note that GE was acquired by Aclara in 2015, so some meters may be branded as GE while others are Aclara. This document also covers special Verizon meters which have an “AC”, “ACE” or “AKC” before the 7-digit meter number. This document is available online at [www.mea.coop](http://www.mea.coop), and is subject to change. If there are questions regarding this document, your meter or billing, please contact MEA Member Services at 907-761-9300.

I-210+ with Standard Display



I-210+ with Extended Display



### Change Management

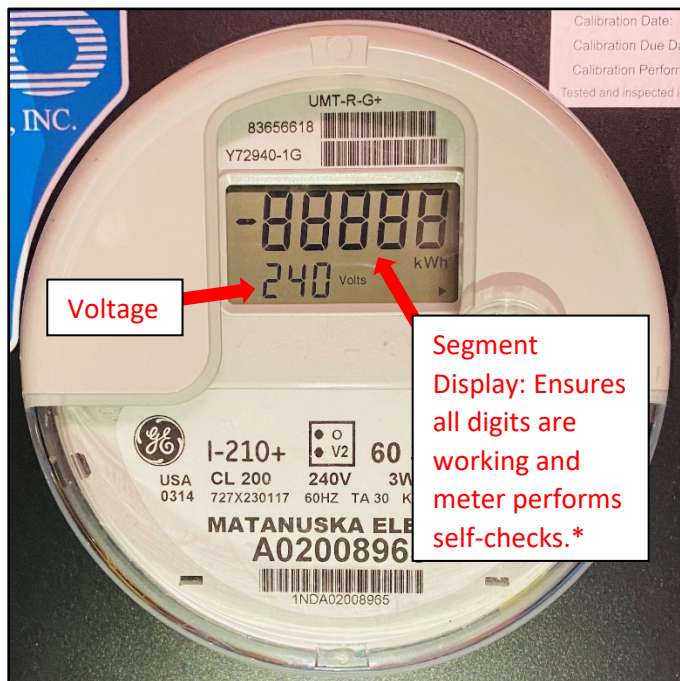
Any modifications to this document require written approval from the Manager of Substations & Metering.

## Meter Type 1: ACLARA I-210+ with Standard Display

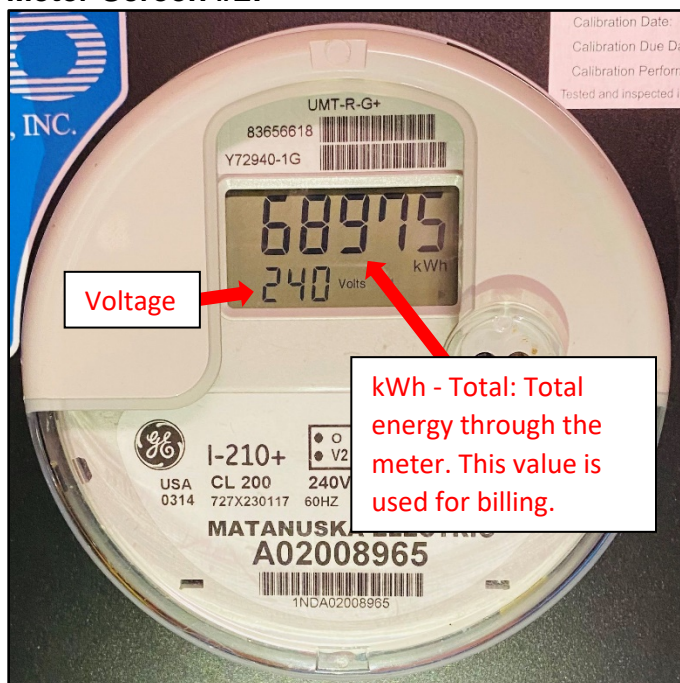
### Application:

This type of meter has historically been installed for all typical residences. MEA is no longer purchasing these meters and instead purchasing the I-210+ with Extended Display meters (described in the next section). \*Segment Display shows up periodically through the meter display cycle. If there are any error or information codes, they will accompany the segment display. See Appendix A for a list of error codes, their definition and recommended action.

### Meter Screen #1:



### Meter Screen #2:



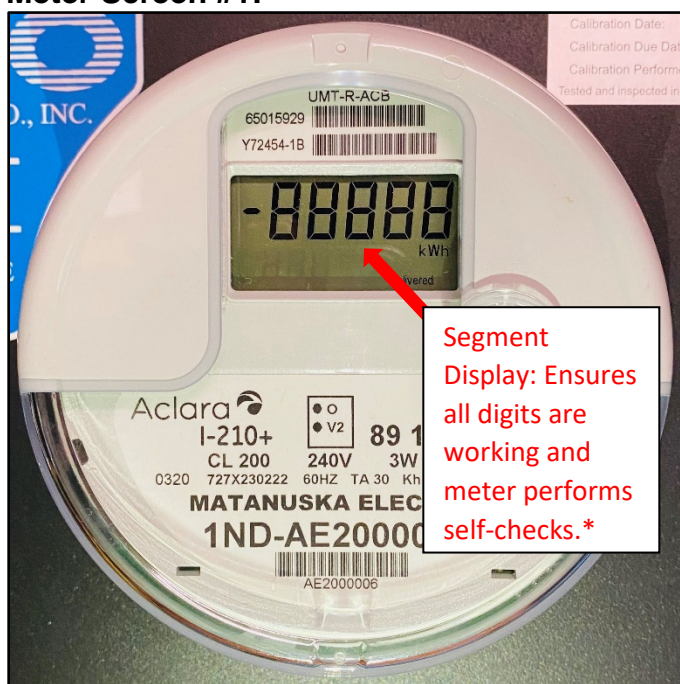


## Meter Type 2: ACLARA I-210+ with Extended Display

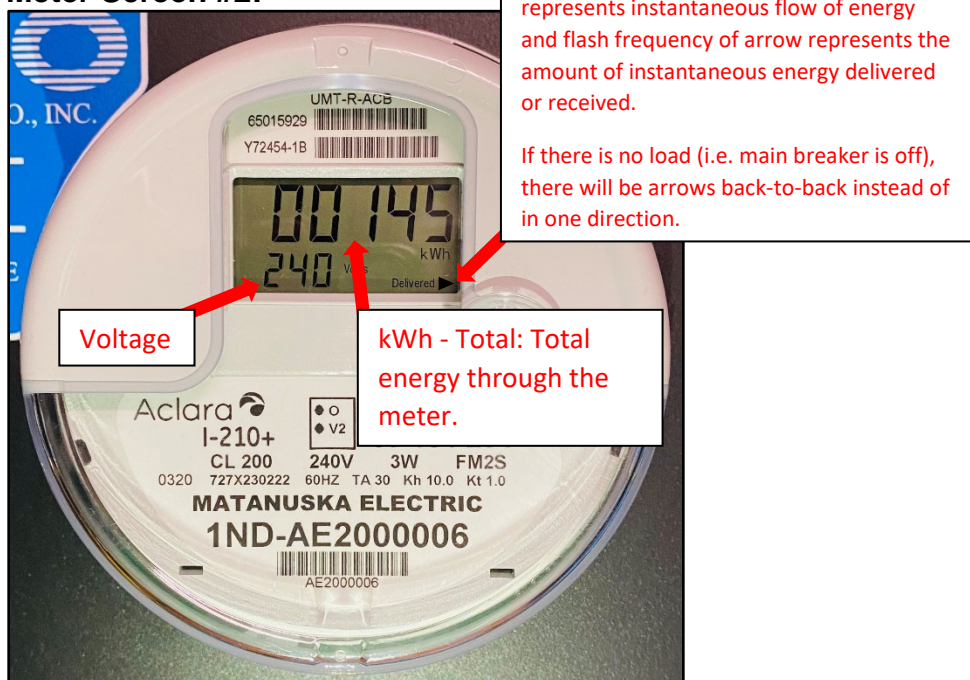
### Application:

This type of meter has historically only been installed for MEA members with renewable sourced co-generation. See [MEA's Net Metering Webpage](#) for details. MEA has, for consistency, adjusted its meter purchases so that all new (and eventually replaced) typical residential meters will all have extended displays. \*Segment Display shows up periodically through the meter display cycle. If there are any error or information codes, they will accompany the segment display. See Appendix A for a list of error codes, their definition and recommended action.

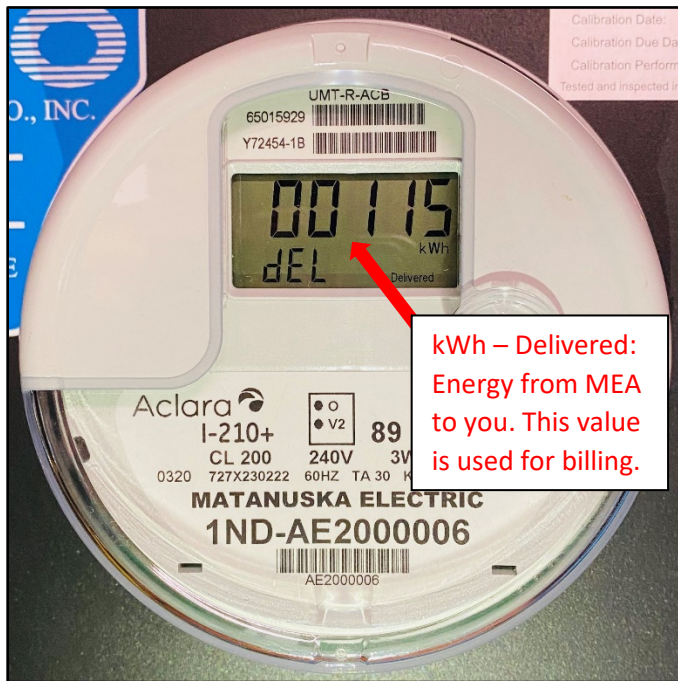
### Meter Screen #1:



### Meter Screen #2:

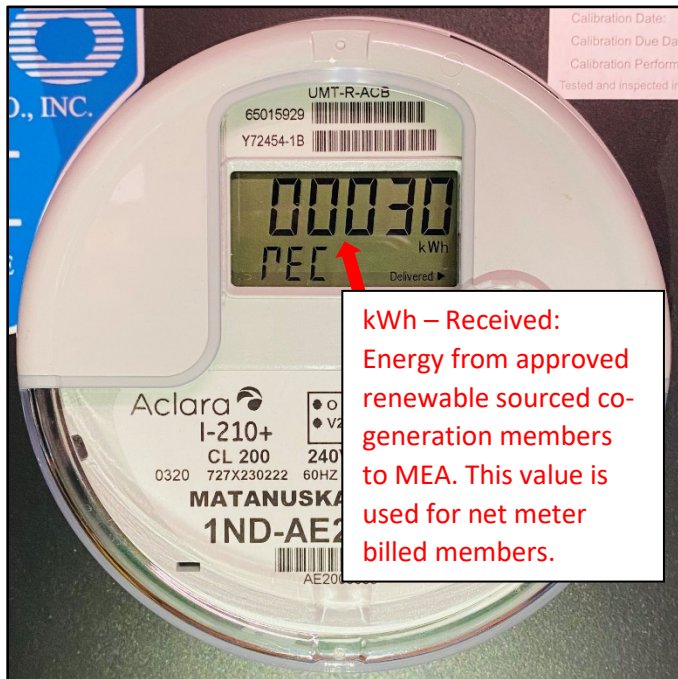


### Meter Screen #3:



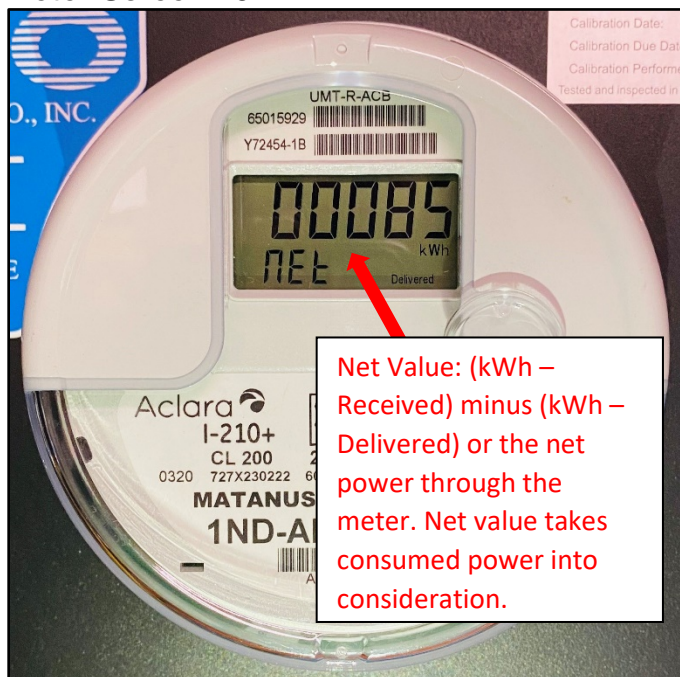
kWh – Delivered:  
Energy from MEA  
to you. This value  
is used for billing.

### Meter Screen #4:

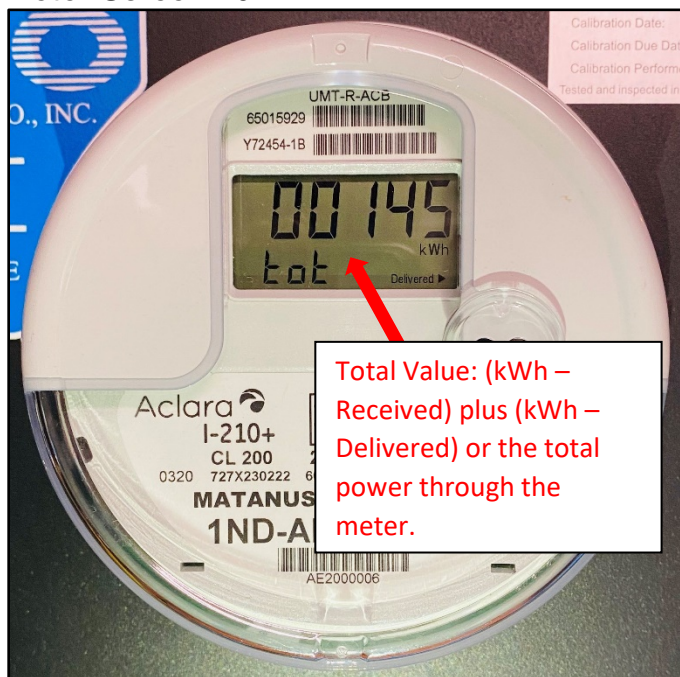


kWh – Received:  
Energy from approved  
renewable sourced co-  
generation members  
to MEA. This value is  
used for net meter  
billed members.

### Meter Screen #5:



### Meter Screen #6:



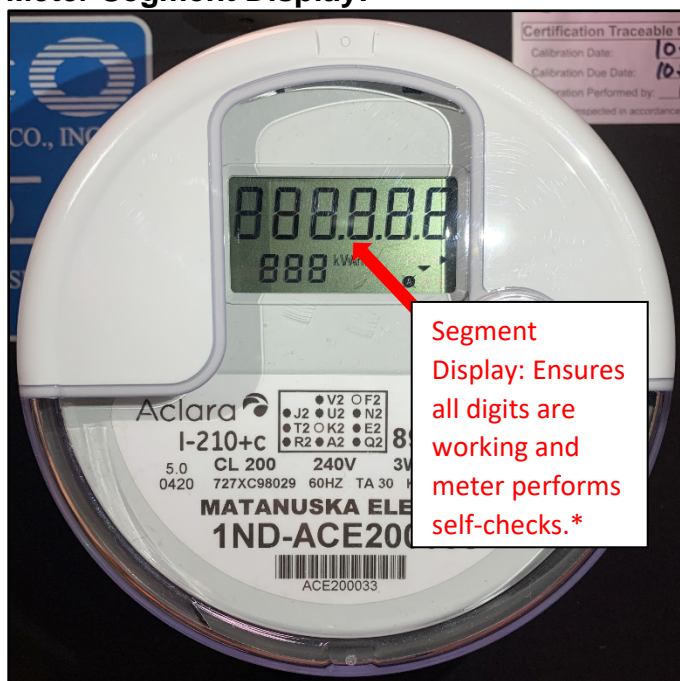


## Meter Type 3: ACLARA I-210+ with Verizon Modem and Extended Display

### Application:

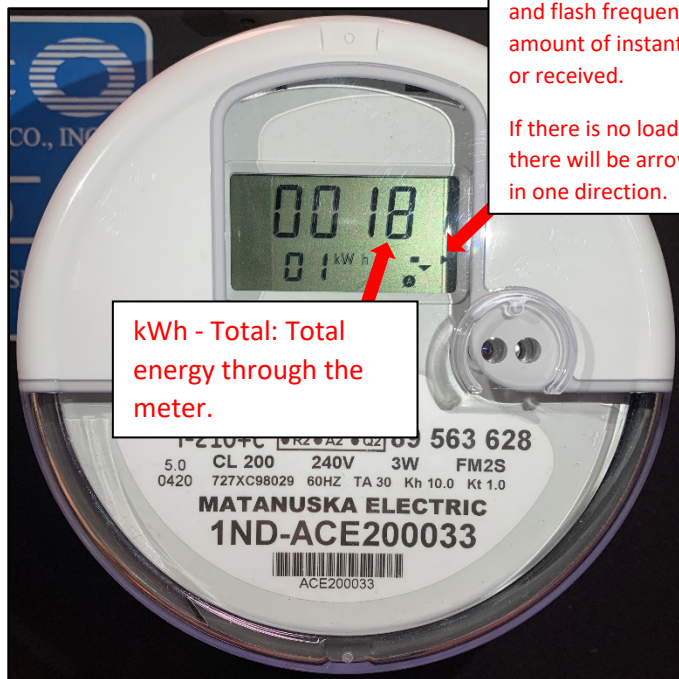
This type of meter is typically installed at locations with one the following conditions. 1. Power line carrier signal back to MEA with meter data is inconsistent/weak. 2. Power line carrier signal interference is determined to be present at the member premises. 3. More detailed energy data is required (for some larger electrical loads). 4. Installed at strategic locations for better outage detection. \*Segment Display shows up periodically through the meter display cycle. If there are any error or information codes, they will accompany the segment display. See Appendix A for a list of error codes, their definition and recommended action.

### Meter Segment Display:





## Meter Screen #1:



kWh - Total: Total energy through the meter.

Accumulator Arrow: Direction of arrow represents instantaneous flow of energy and flash frequency of arrow represents the amount of instantaneous energy delivered or received.

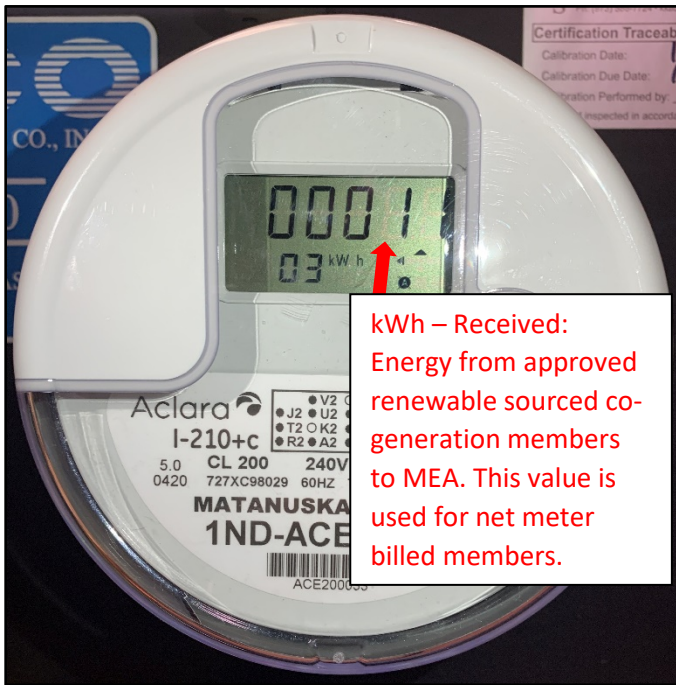
If there is no load (i.e. main breaker is off), there will be arrows back-to-back instead of in one direction.

## Meter Screen #2:



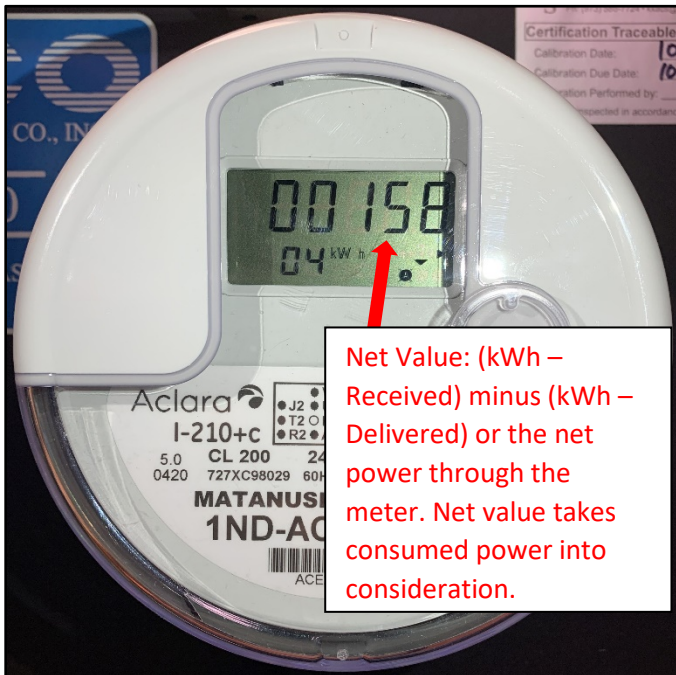
kWh – Delivered: Energy from MEA to you. This value is used for billing.

### Meter Screen #3:



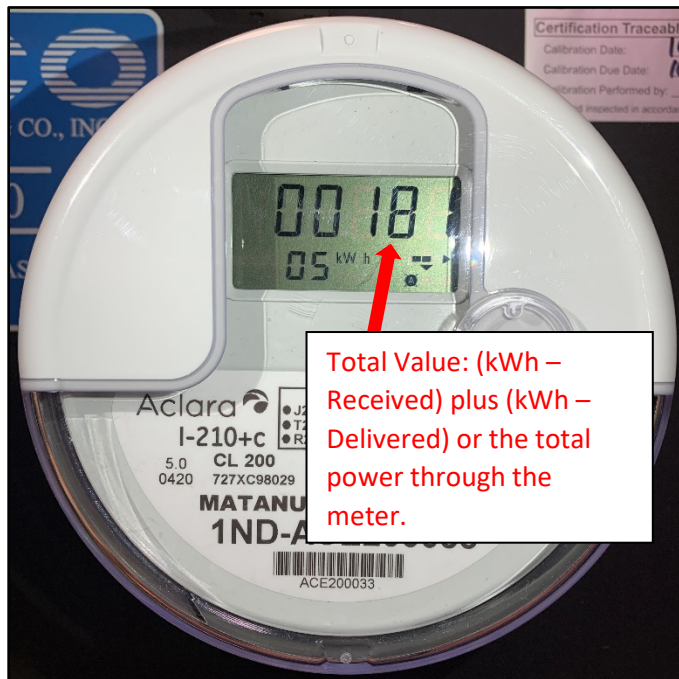
kWh – Received:  
Energy from approved  
renewable sourced co-  
generation members  
to MEA. This value is  
used for net meter  
billed members.

### Meter Screen #4:



Net Value: (kWh –  
Received) minus (kWh –  
Delivered) or the net  
power through the  
meter. Net value takes  
consumed power into  
consideration.

### Meter Screen #5:



### Meter Screen #6:



## **APPENDIX A: I-210+ Display Codes**

- **Err:** Indicates there was an error detected during the self-test operation.  
Action: Contact MEA Member Services if this display is shown more than once.
- **SER:** Indicates a service application error was detected.  
Action: Contact MEA Member Services if this display is shown more than once.
- **AD1:** Indicates that the meter is being read by MEA.  
Action: None – for information only.
- **LoU:** Indicates that load-side voltage is detected.  
Action: Normal for approved renewable source co-generation members when generating. For other members, this is abnormal and may be unsafe. This includes those with backup generators which should not backfeed the MEA grid. If unsure, or if this code is present without any valid reason, you should contact MEA Member Services.

### **Additional Display Codes Applicable to Verizon I-210+ Meters**

- **CA 000 010:** Indicates that the meter is unprogrammed and requires reprogramming.
- **CA 000 040:** Indicates that the meter's programming cannot be determined.
- **CA 400 000:** Indicates reverse power flow through the meter. Disregard if you have an executed net metering agreement and functional renewable generation equipment. If you do not have such equipment, you may have a technical issue. If you have such equipment but no executed agreement with MEA, you may be in violation of the MEA interconnection policy and should promptly contact MEA Member Services.
- **Er 000 020:** Indicates hardware failure.
- **Er 000 100:** Indicates RAM error.
- **Er 000 200:** Indicates EEPROM check sum failure.
- **Er 001 000:** Indicates either a microprocessor or ROM checksum error.
- **Er 100 000:** Indicates A/D converter failed status test.



## MEA DISTRICT OFFICES



Matanuska Electric Association, Inc.  
163 E. Industrial Way  
Palmer, AK 99645  
761-9300  
[www.mea.coop](http://www.mea.coop)

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### **Palmer Headquarters**

163 E. Industrial Way  
761-9300 or 745-3231

### **Wasilla**

1401 S. Seward Meridian Pkwy.  
376-7237 or 761-9500

### **Eagle River**

11623 Aurora St.  
694-2161

### **Engineering Office:**

#### **Big Lake (visits by appointment only)**

9550 W. Herkimer Dr.  
761-9450

### **Power Outages:**

Mat-Su: 746-7697 (746-POWR)  
Eagle River or Anchorage: 696-7697 (696-POWR)  
SmartHub: Download the app at [www.mea.coop](http://www.mea.coop)

### **Underground Locate Requests:**

Call Alaska Digline, Inc.  
1-800-478-3121 (Mat-Su)  
278-3121 (Eagle River or Anchorage)  
Or dial 811

