Meter Management

Modify Existing Meters

Utility Management > Meters > Modify Existing Meters = meter inventory

Several numbers associated with meters can be tracked depending on what is needed for Electronic Reading – each setup can vary greatly.

1. **Meter ID** – the main identifier of the meter. It can be the serial number, register number or electronic read number depending on the electronic reading interface

2. **Other ID** – usually the serial number if NOT in the Meter ID field but can be any other number that needs to be tracked

3. **EMR ID** – communication ID for some electronic reading interfaces that is usually used in conjunction with the **EMR Code**

4. **MXU ID** – communication ID for some electronic reading interfaces that is usually used in conjunction with the **MXU Type**

5. **Multiplier** – the number you must multiply the meter reading usage by to get the actual customer consumption

6. **Registers** – the number of readings that are coming from each meter. Water meters and non-TOU residential and commercial ELECTRIC meters have one register. Demand and Time of Use meters can have multiple registers

    a. **Type** – tells the system what information is coming from the meter
        i. Reading – the register reading, most used
        ii. Quantity – the usage
        iii. Demand Used – demand reading (non-TOU)
        iv. Demand On-Peak – on peak demand reading v. Demand Off-Peak – off peak demand reading
        vi. kVAR Reading – register reading for kVAR
        vii. kVAR Usage – usage for kVAR
    b. **Dials** – used to determine when a meter has rolled over

Standard Water or Electric Meter:

Registers

	Type	Title	Dials	Code
Register 1:	Reading	Reading	4	
Register 2:	None		0	
Register 3:	None		0	
Register 4:	None		0	
Register 5:	None		0	
Register 6:	None		0	

Time of Use (TOU) Electric Meter (No Demand):

Registers

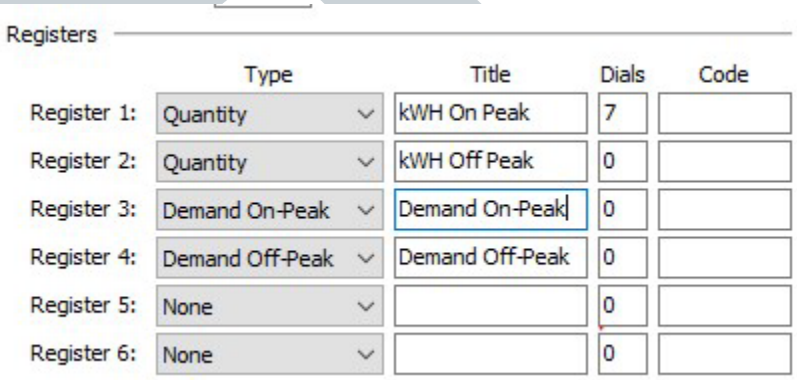
	Type	Title	Dials	Code
Register 1:	Reading	kWH On-Peak	5	
Register 2:	Reading	kWH Off-Peak	0	
Register 3:	None		0	
Register 4:	None		0	
Register 5:	None		0	
Register 6:	None		0	

Demand Meter for AMI Setup:

Registers

	Type	Title	Dials	Code
Register 1:	Reading	Reading	5	
Register 2:	Reading	Not Used	0	
Register 3:	Demand Used	Demand Used	0	
Register 4:	None		0	
Register 5:	None		0	
Register 6:	None		0	

Time of Use (TOU) Demand Meter – Usage:



7. **User Defined Fields** – in the Meter table these are used mainly for additional information the AMI or MDM software needs. Every setup can be different depending on the vendor's needs.

Meter Activity

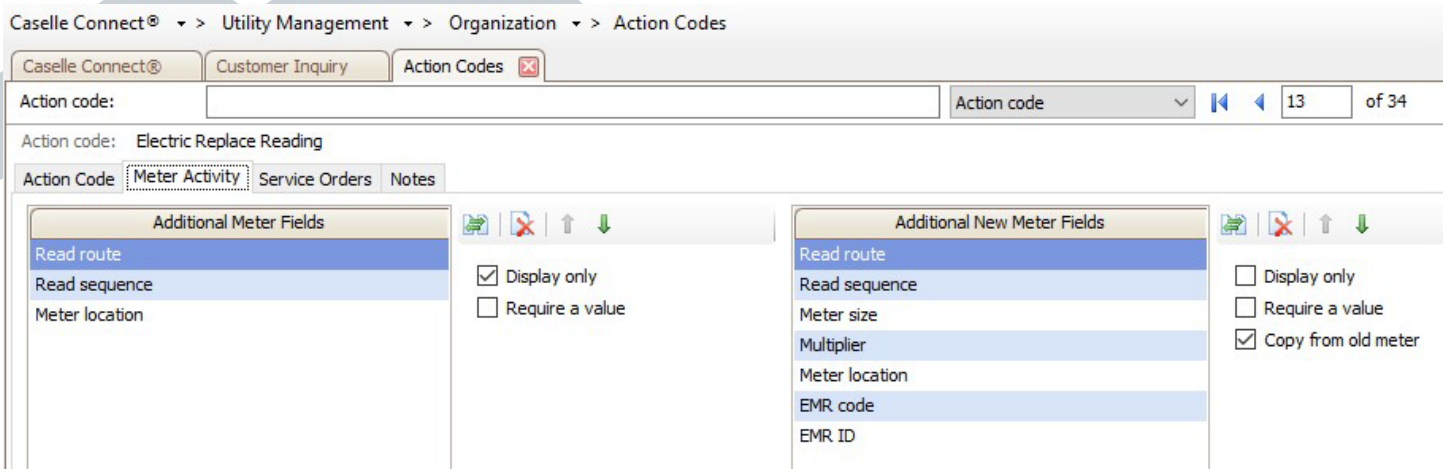
Utility Management > Organization > Action Codes

1. Action codes are the foundation of activity in Connect and control multiple functions from the background such as which fields appear in Enter Meter Activity (see Enter Meter Activity section)

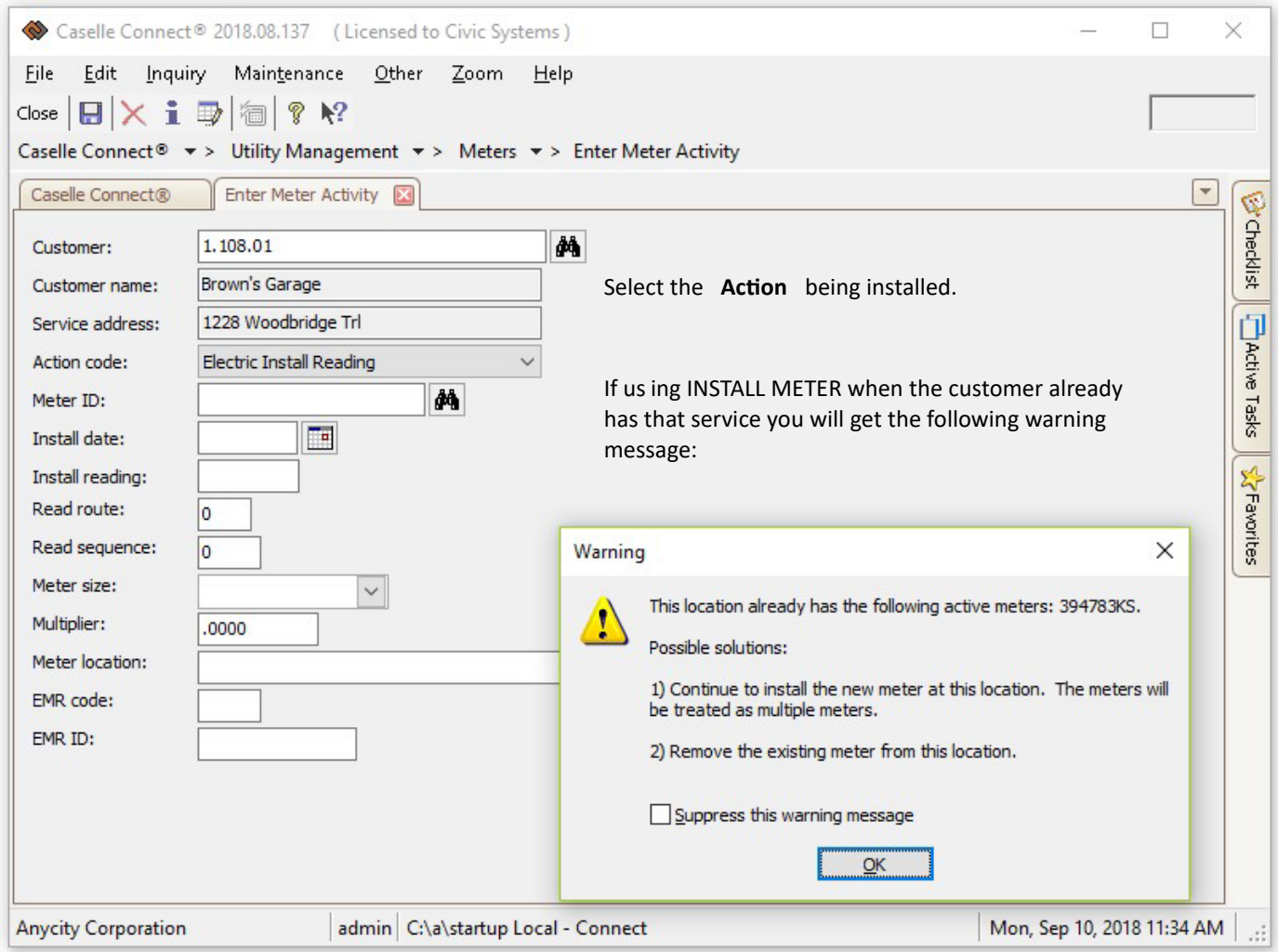
    a. Meter Activity tab allows you to choose which fields you'd like to see on the Enter Meter
    Activity tab including any User Defined fields from the Meter table

    b. Check Copy from old meter on the far-left side column to bring forward the information in that field from the old meter onto the new meter

    c. Note: if using Service Orders, the fields here should match on the Service Orders tab to ensure smooth completion of Service Orders



Utility Management > Meters > Enter Meter Activity



Select the **Action** being installed.

If us ing INSTALL METER when the customer already has that service you will get the following warning message:

1. SERVICE Meter Install

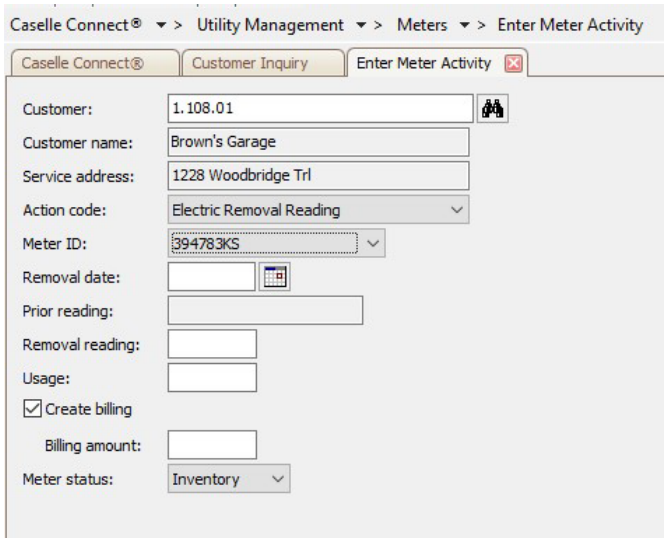
Adds the service record to the customer, adds the meter to inventory, and installs it on the location (service address)

Put in all of the information needed about the meter on the Install. These fields can be added or removed to be exactly what you need (see ACTION CODES). Otherwise, you can always go into Modify Existing Meters to add/correct any fields

Make sure the Install reading/date is correct – this cannot be corrected in Correct Prior Reading/Usages – to fix errors, a Civic Support ticket will need to be logged

2. SERVICE Meter Remove

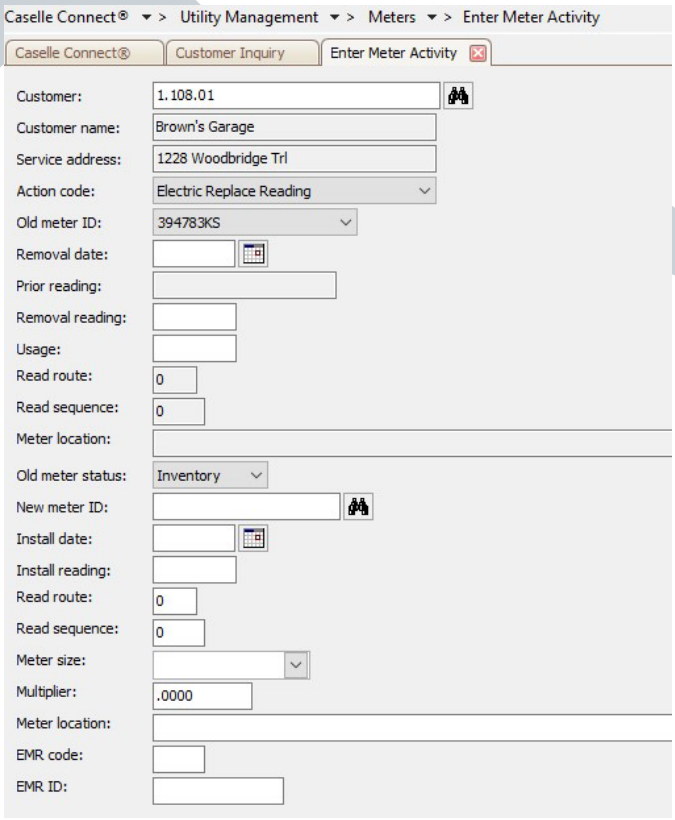
a. Removes the meter from the location, changes the status of the meter (inventory if meter may be used again, retired if being discarded), creates a meter activity record and a billing transaction for the removal usage if needed



3. SERVICE Meter Replace

a. Removes the meter from the location, changes the status of the meter, creates a meter activity record and a billing transaction for the removal usage and installs the new meter at the location.

b. Replace will copy any pertinent information from the old meter to the new meter; for example: Read Route and Read Sequence – See ACTION CODES to set other fields to copy forward



c. Replacement Timing

Timing of Meter Replacements is IMPORTANT!

The ideal time to do a Meter Replacement is between the beginning of the period and before Meter Reading. If done during this time frame, no additional steps are necessary.

If a Meter Replacement is done after meter reading has been completed. The following steps should be followed:

1. Delete the existing meter reading through Enter Meter Readings.
    a. Go into Enter Meter Readings in Single Mode
    b. Enter the customer number
    c. Highlight the read to delete and click on the
2. Replace the meter through Meter Activity.
3. Enter a reading for the new meter, **even if it is 0**, through Enter Meter Readings.

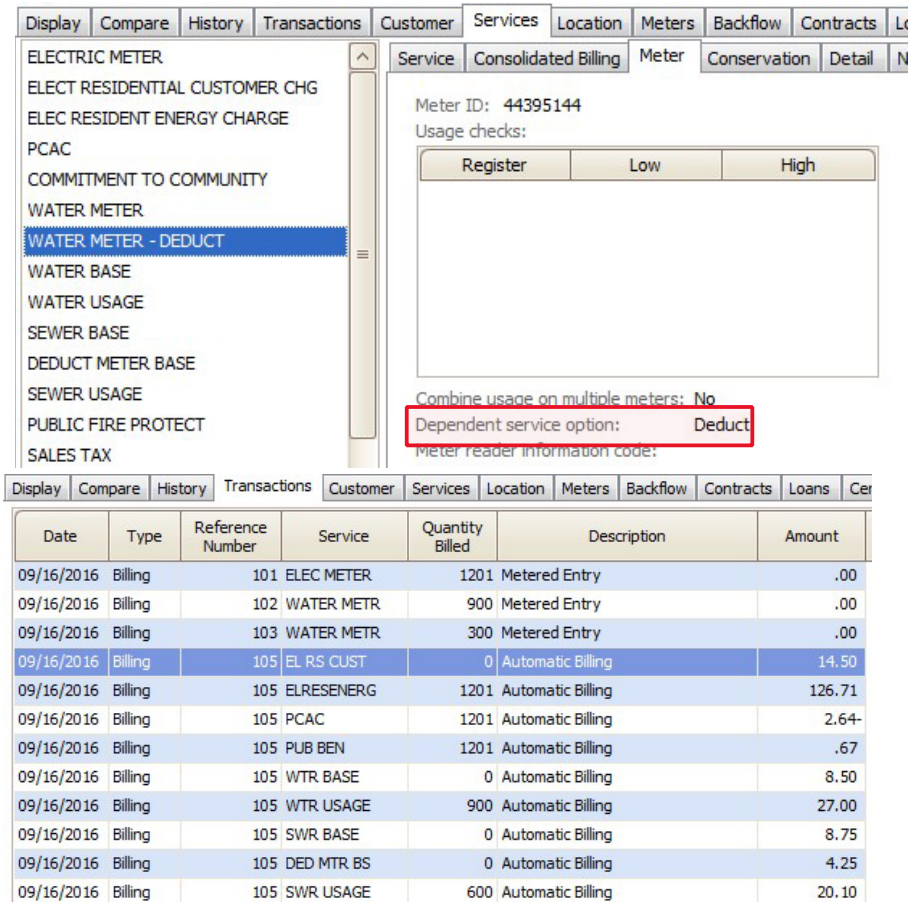
Reasoning:

1. Delete the existing meter reading because the usage is already calculated on the existing meter reading. When the meter is removed the removal record will not include that usage. The usage on that meter reading will not be billed. When a meter replacement is done, only the usage from the removal record and the new meter's period meter reading is billed.
2. There must be a Period Meter Reading after the meter removal to pick up the usage from the removal record. If there is not a period meter reading, the usage from the removal record will not be billed.

Multiple Meters

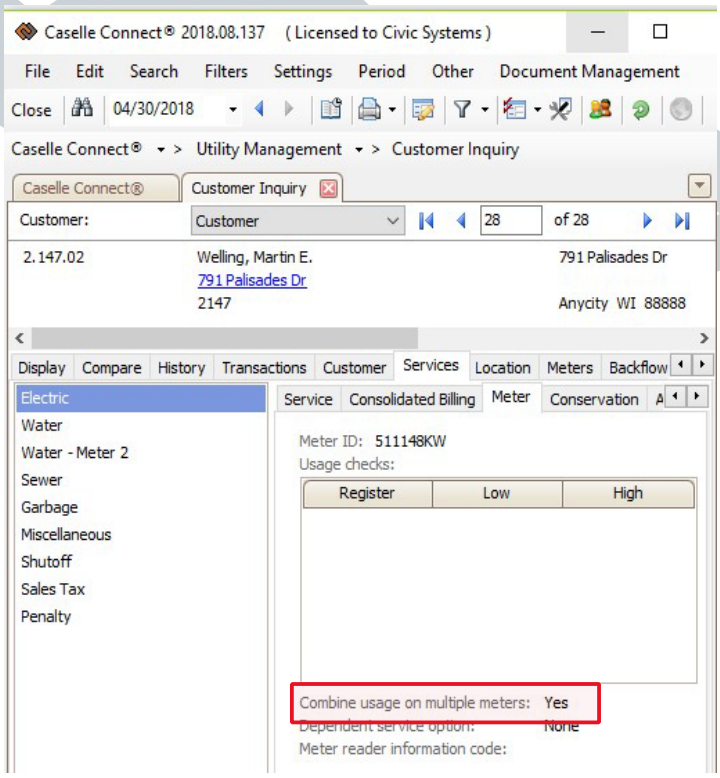
Locations can contain multiple meters for many different reasons. For example, there may be 2 meters on the account where everything is billed for both meters or there may be a Water/Sewer meter and a Deduct meter on an account where Water is billed on the main meter and Sewer is billed the difference of the two meters.

1. Deduct Water Meters
    a. There are 2 meters on the account; a Water/Sewer meter and a Deduct meter.
    b. Water is billed on the main meter and Sewer is billed on the difference of two meters
    c. Set Dependent service option to Deduct to subtract the usage on this meter from the main meter when billing Sewer

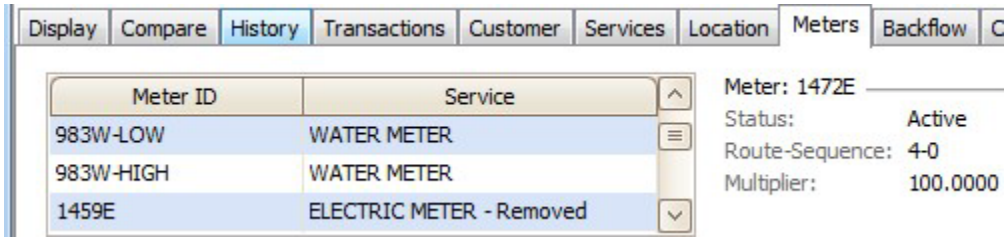


Date	Type	Reference Number	Service	Quantity Billed	Description	Amount
09/16/2016	Billing	101	ELEC METER	1201	Metered Entry	.00
09/16/2016	Billing	102	WATER METR	900	Metered Entry	.00
09/16/2016	Billing	103	WATER METR	300	Metered Entry	.00
09/16/2016	Billing	105	EL RS CUST	0	Automatic Billing	14.50
09/16/2016	Billing	105	ELRESENERG	1201	Automatic Billing	126.71
09/16/2016	Billing	105	PCAC	1201	Automatic Billing	2.64-
09/16/2016	Billing	105	PUB BEN	1201	Automatic Billing	.67
09/16/2016	Billing	105	WTR BASE	0	Automatic Billing	8.50
09/16/2016	Billing	105	WTR USAGE	900	Automatic Billing	27.00
09/16/2016	Billing	105	SWR BASE	0	Automatic Billing	8.75
09/16/2016	Billing	105	DED MTR BS	0	Automatic Billing	4.25
09/16/2016	Billing	105	SWR USAGE	600	Automatic Billing	20.10

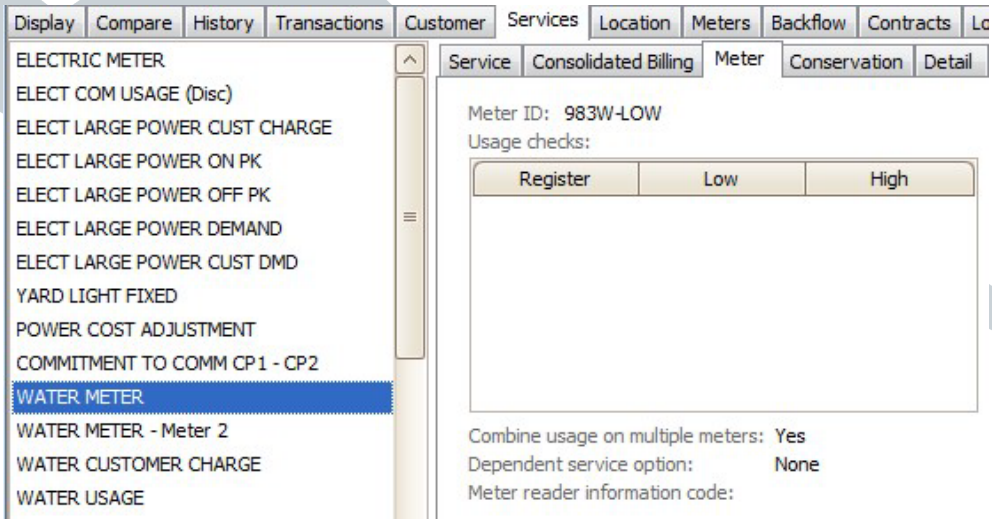
2. Combine Usage on Multiple Meters
    a. There are 2 meters on the account where everything is billed for both
    b. Set Combine usage on multiple meters to YES to combine usage for multiple meters when billing using step rates, usually used for water



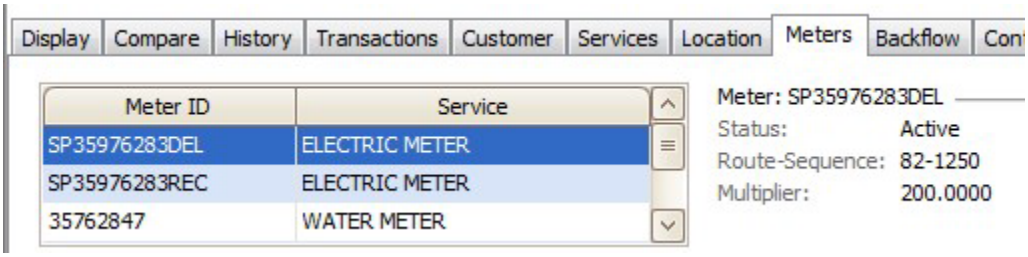
3. Compound Meters
   a. Set up as 2 meters, one for high flow and one for low flow



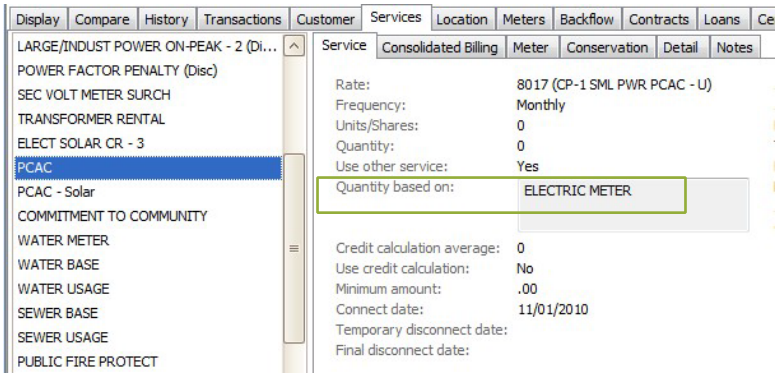
   b. On the metered services, these can be flagged to combine usage on multiple meters if required



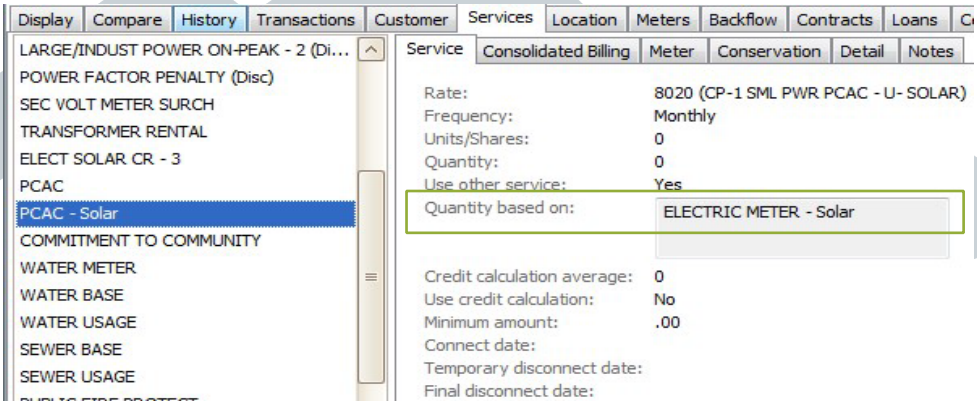
4. Power Generation Meters – Solar/Wind Meters
   a. Customers that generate their own power through solar or wind should have 2 meters. One meter tracks the Delivered usage and one meter tracks the Received (generated) usage. The credit for the generation meter will be handled with the rate on the Solar or Wind service.



   b. The normal PCAC service will have Quantity based on the delivered meter (normal meter)



   c. A separate PCAC rate will be set up for the generation credit and added to the account. This rate will be the reverse sign of the normal PCAC rate and the service will point to the generation (solar/wind) meter.

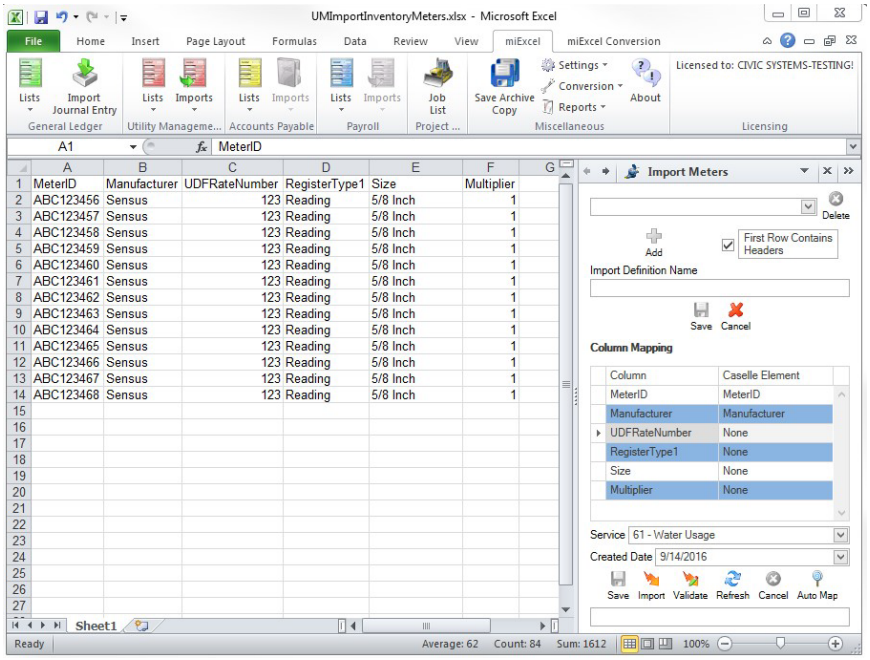


miExcel UB

miExcel UB is a tool used to get data out of Connect for reports or to import data into Connect. There are 3 import functions in miExcel UB: Meters to Inventory, Rates, Replaces Meters. miExcel UB has reporting options as well.

1. Meters to Inventory

   a. Imports meters and associated information from a spreadsheet into the Meter table



   b. On the spreadsheet of meter information, highlight the columns and rows to be imported c. Click Imports > Meters to Inventory

   d. On the right side, Import Meters will open

   e. Check First Row Contains Headers (only if the spreadsheet does use a header row)

   f. Map all of the columns to the correct Caselle fields

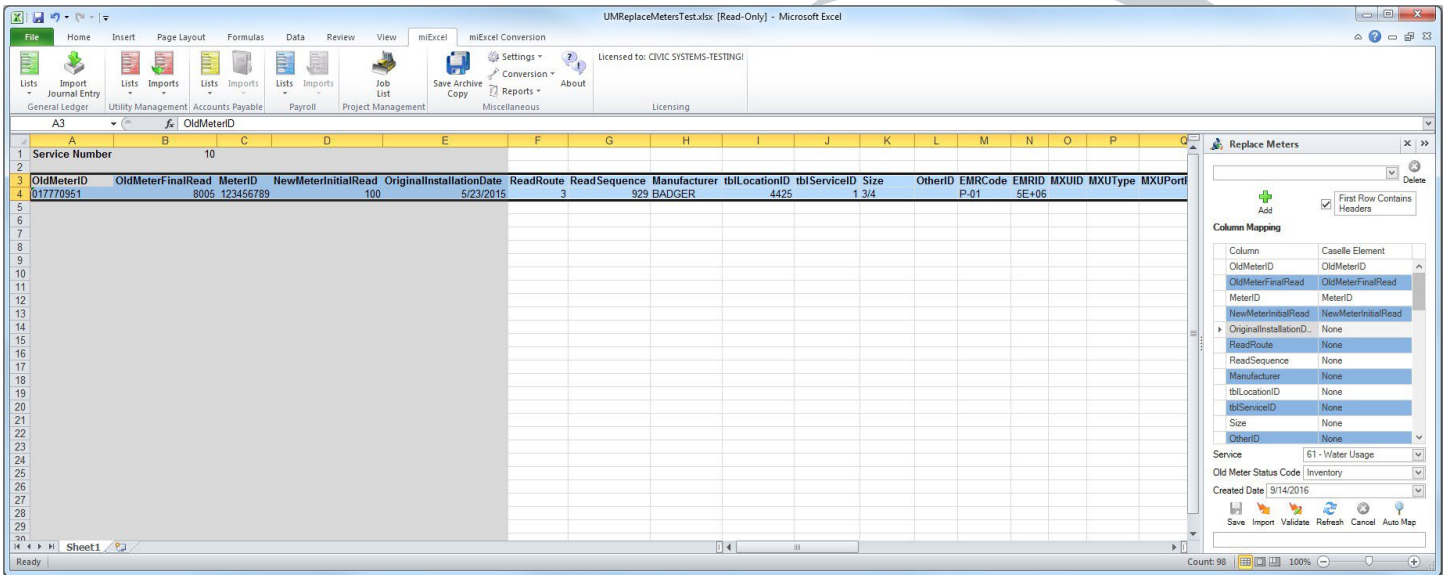
   g. Enter the service for the Meters

h. Click Validate to check for errors

i. Once validated, click Import to actually import the meters

2. Replace Meters

a. Imports meters and associated information from a spreadsheet into the Meter Table and imports the Meter Activity records for the meter replacement



b. On the spreadsheet of replace meter information, highlight the columns and rows to be imported c. Click Imports > Replace Meters

d. On the right side, Import Meters will open

e. Check First Row Contains Headers (if your spreadsheet does actually have a header column)

f. Map all of the columns to the correct Caselle fields

g. Enter the Service for the Meters

h. Enter the Old Meter Status Code

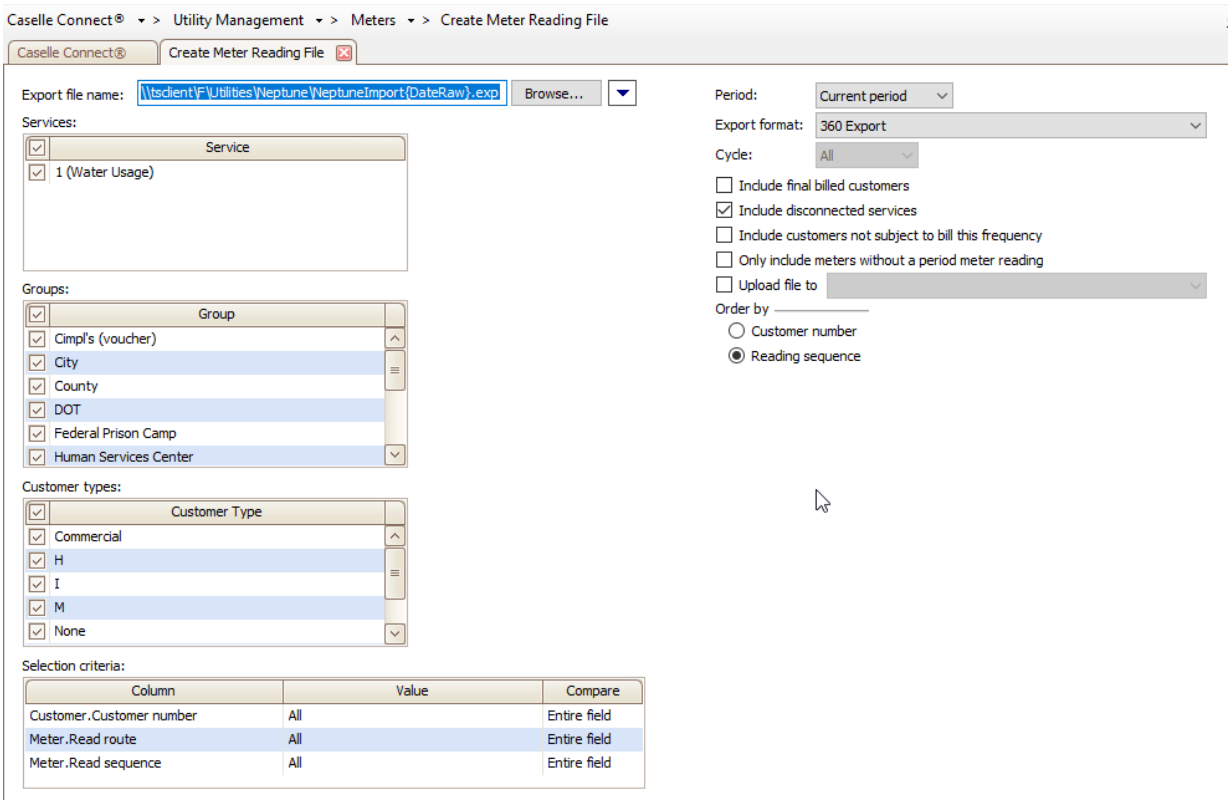
i. Click Validate to check for errors

j. Once validated, click Import to replace the meters

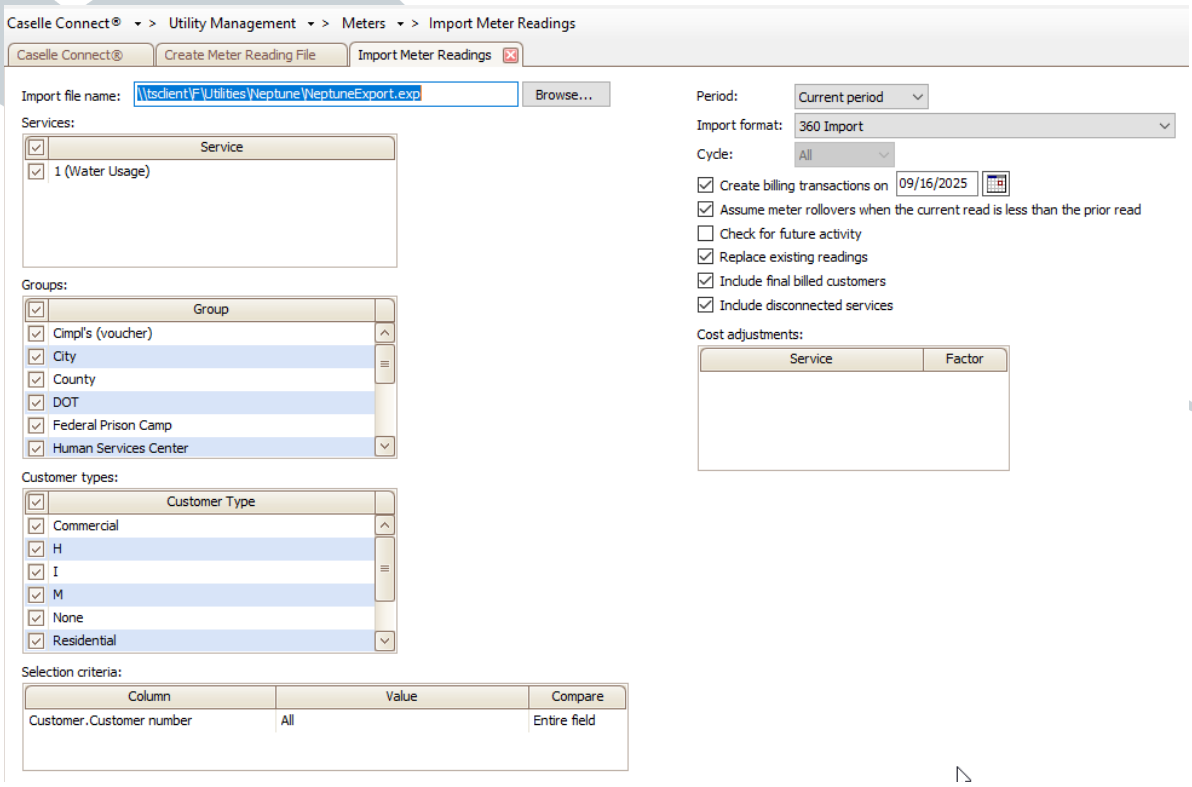
Meter Reading

Check your checklist in Connect for these steps as they should walk you through this process.

1. Create Meter Reading File
    a. Used to create the import or request file for the electronic reading software
        i. When in the process of switching electronic reading software, this will be used for both
    b. Export file name and the Export format may need to be changed depending on which meters are being read
    c. Read Route and Selection Criteria will be used to determine which meters are loaded into which export file

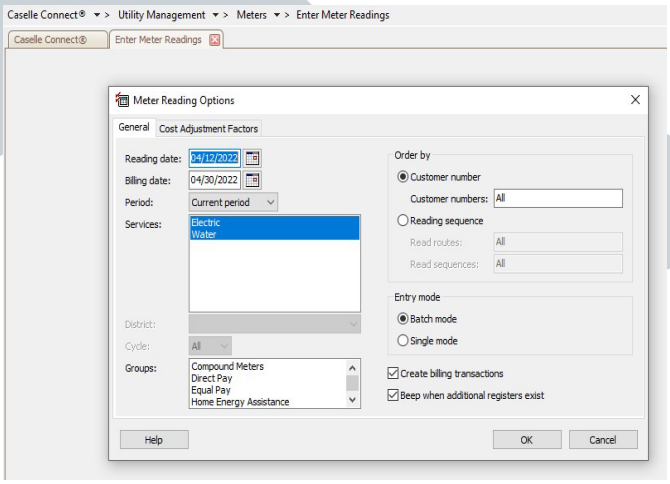


2. Import Meter Readings
    a. Used to import reads from the electronic reading software
        i. When in the process of switching electronic reading software, this will be used for both
    b. The Import file name and the Import format may need to be changed depending on which meters are being read
    c. Utilities that read meters throughout the period sometimes choose not to create billing transactions until they are ready to work on billing. This can be done by unchecking Create billing transactions. If this is unchecked at this point, then at the beginning of billing, Calculate Amount/Usages will need to be run

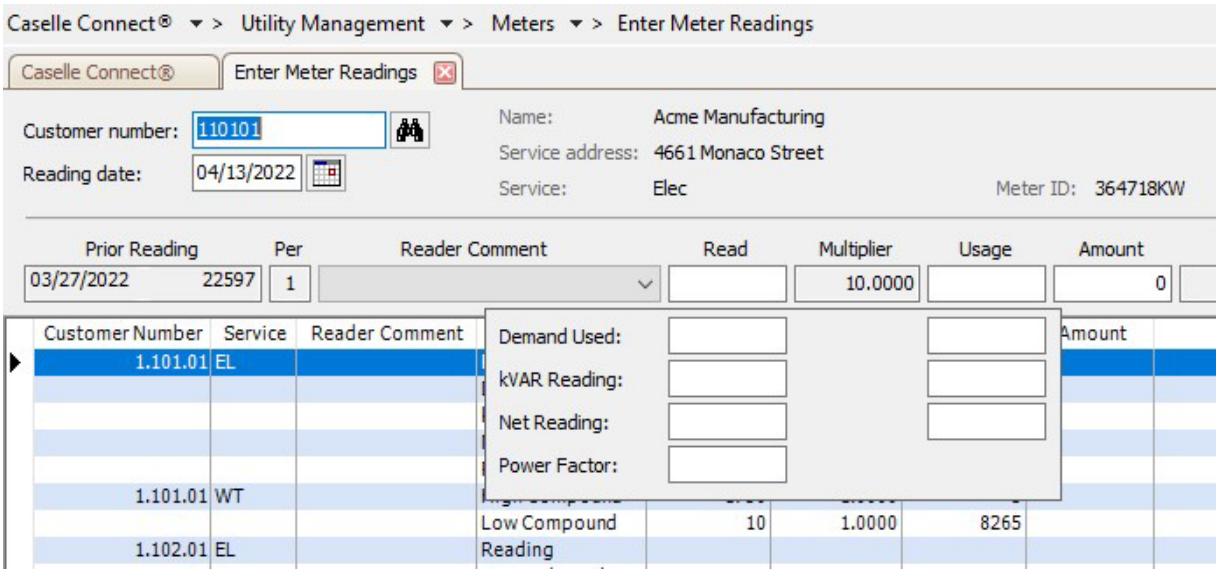


3. Enter Meter Readings

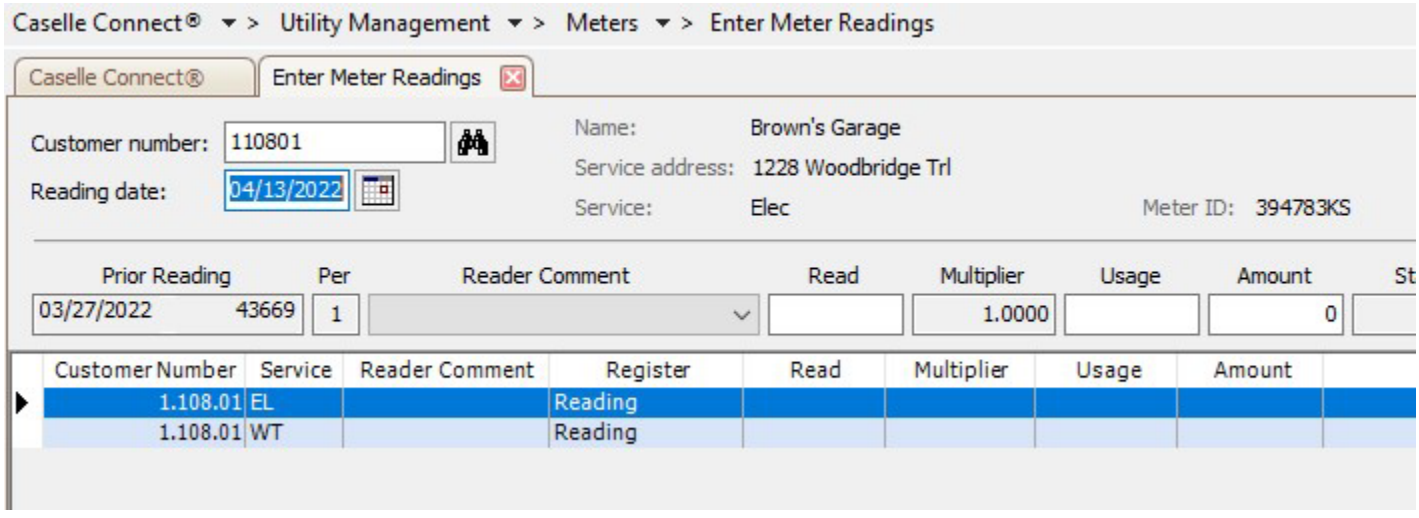
a. Meter readings can be entered manually
b. Meter readings can be corrected
c. Batch mode
    i. Used when entering ALL reads manually
    ii. Brings in reads in Reading Sequence or Customer Number order
    iii. Can choose to bring in 1 route at a time if meters organized that way
d. Single mode
    i. Used when correcting reads
    ii. Allows you to enter the individual customer numbers that need to be corrected e. Create billing transactions
    i. Unchecked if you don't want the dollar amounts created at this time
f. DOUBLE CHECK the Reading Date – it defaults to current day



Batch Mode:



Single Mode:

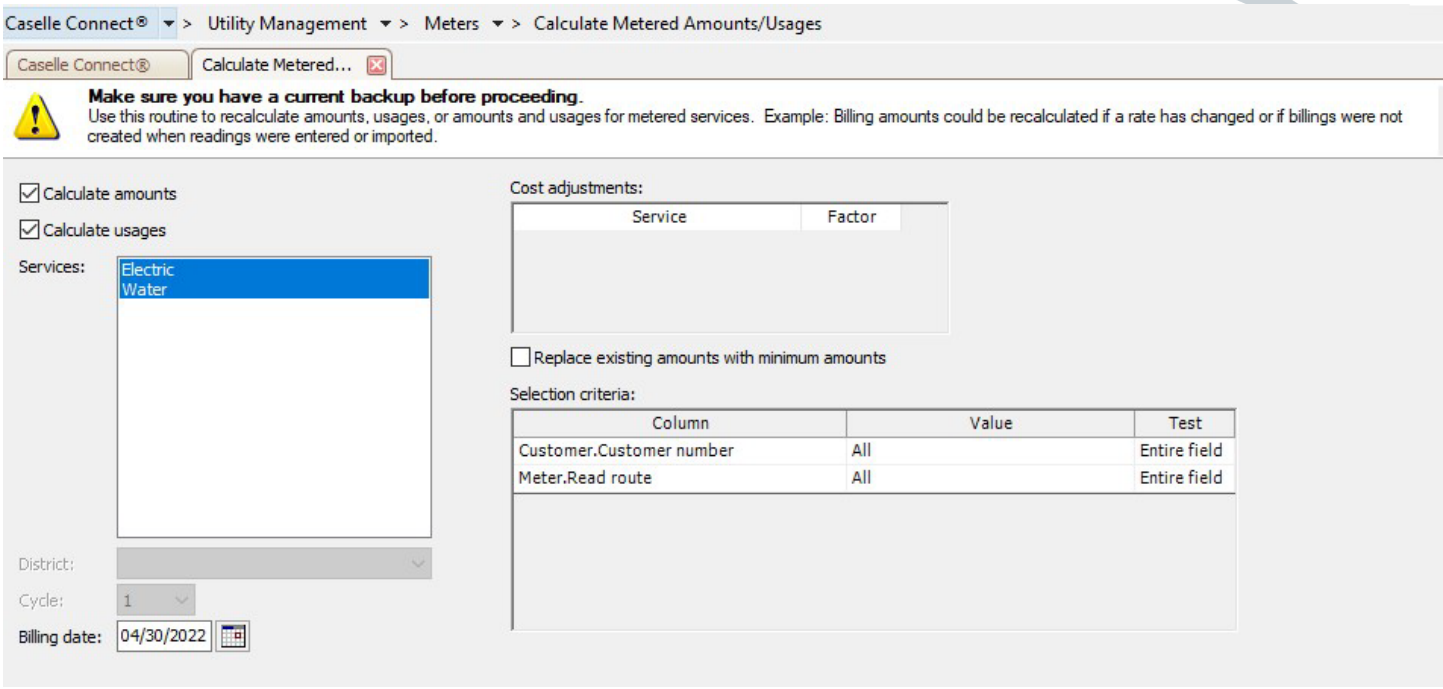


4. **Calculate Metered Amounts/Usages** (only if you previously unchecked Create billing transactions when importing meter reads)

   a. Used to calculate metered billing transactions if they were NOT created when the reads were imported or manually entered

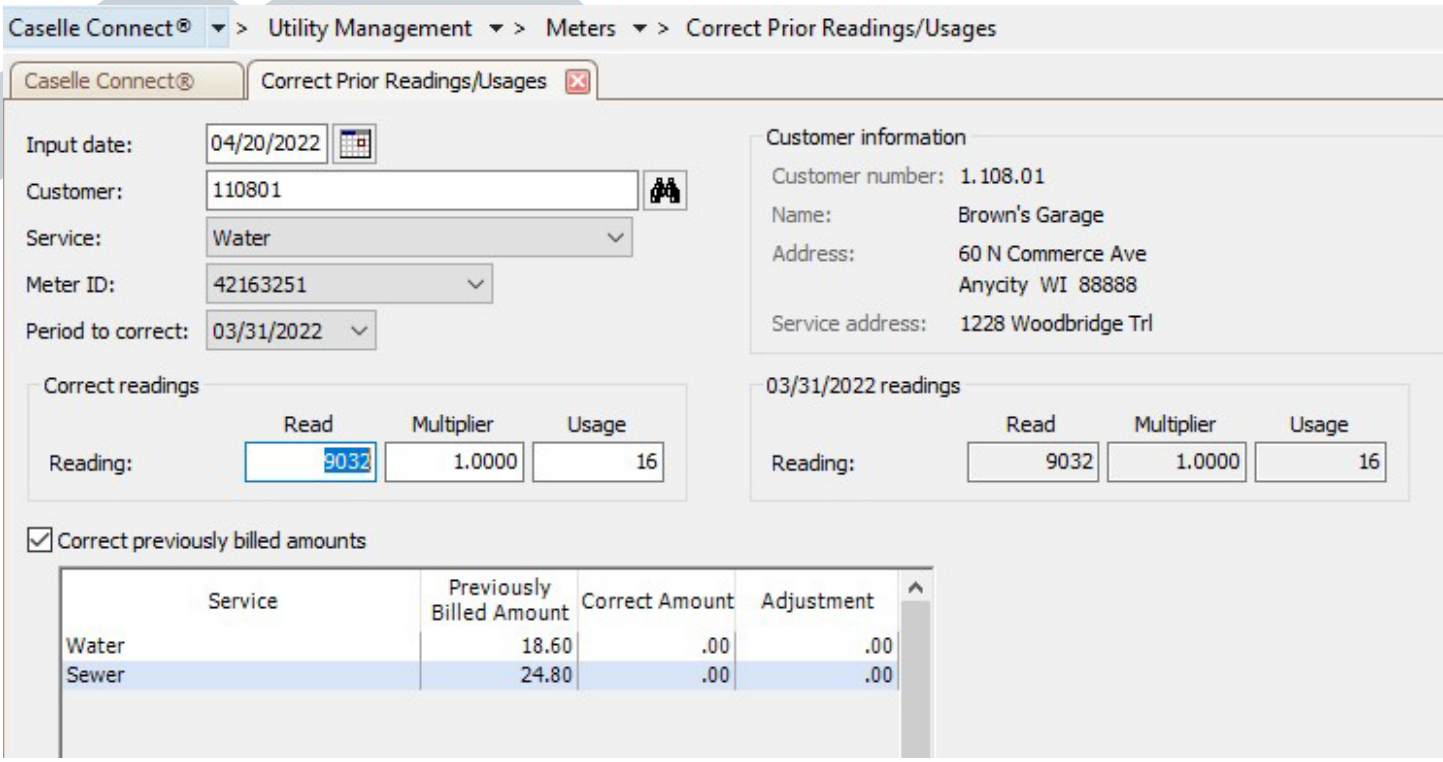
   b. Can be used to recalculate metered billing transactions if rates were changed after meter reading was imported

   c. NOTE: If you have overwritten usages in Enter Meter Readings, they will be recalculated based on the readings if you select Calculate Usages here

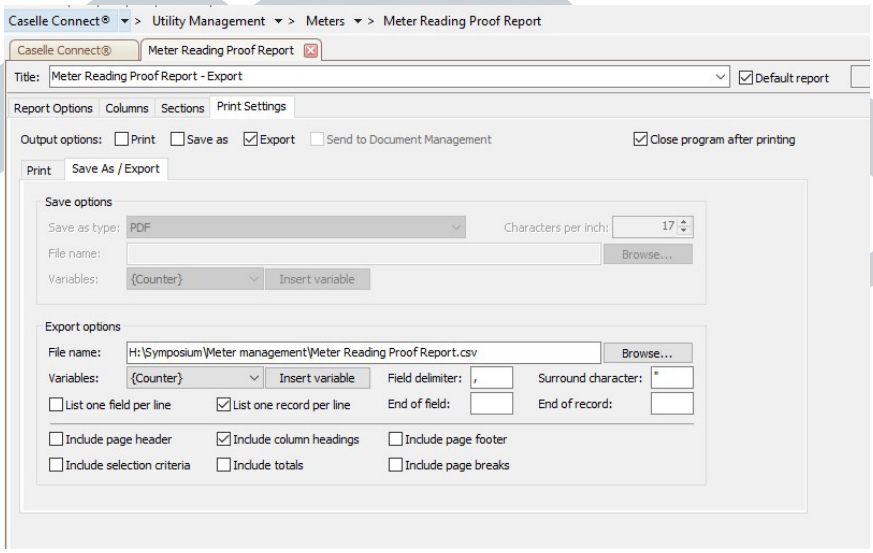


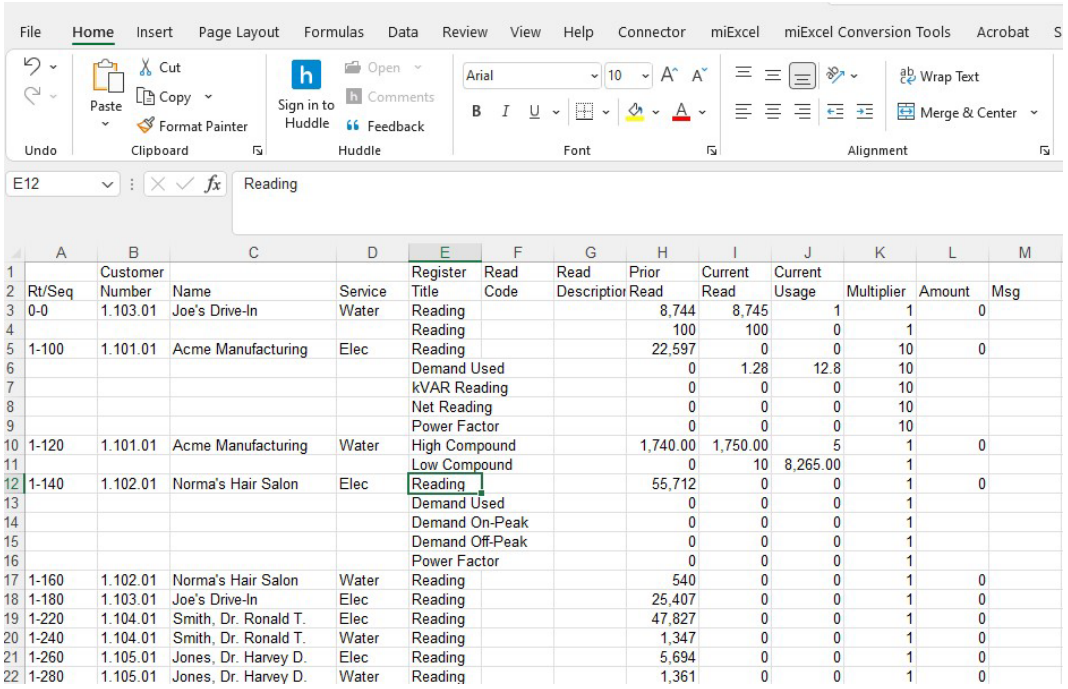
5. Correct Prior Readings/Usages

   a. Used to correct a prior reading only or to correct a prior reading and usage which creates a billing adjustment transaction



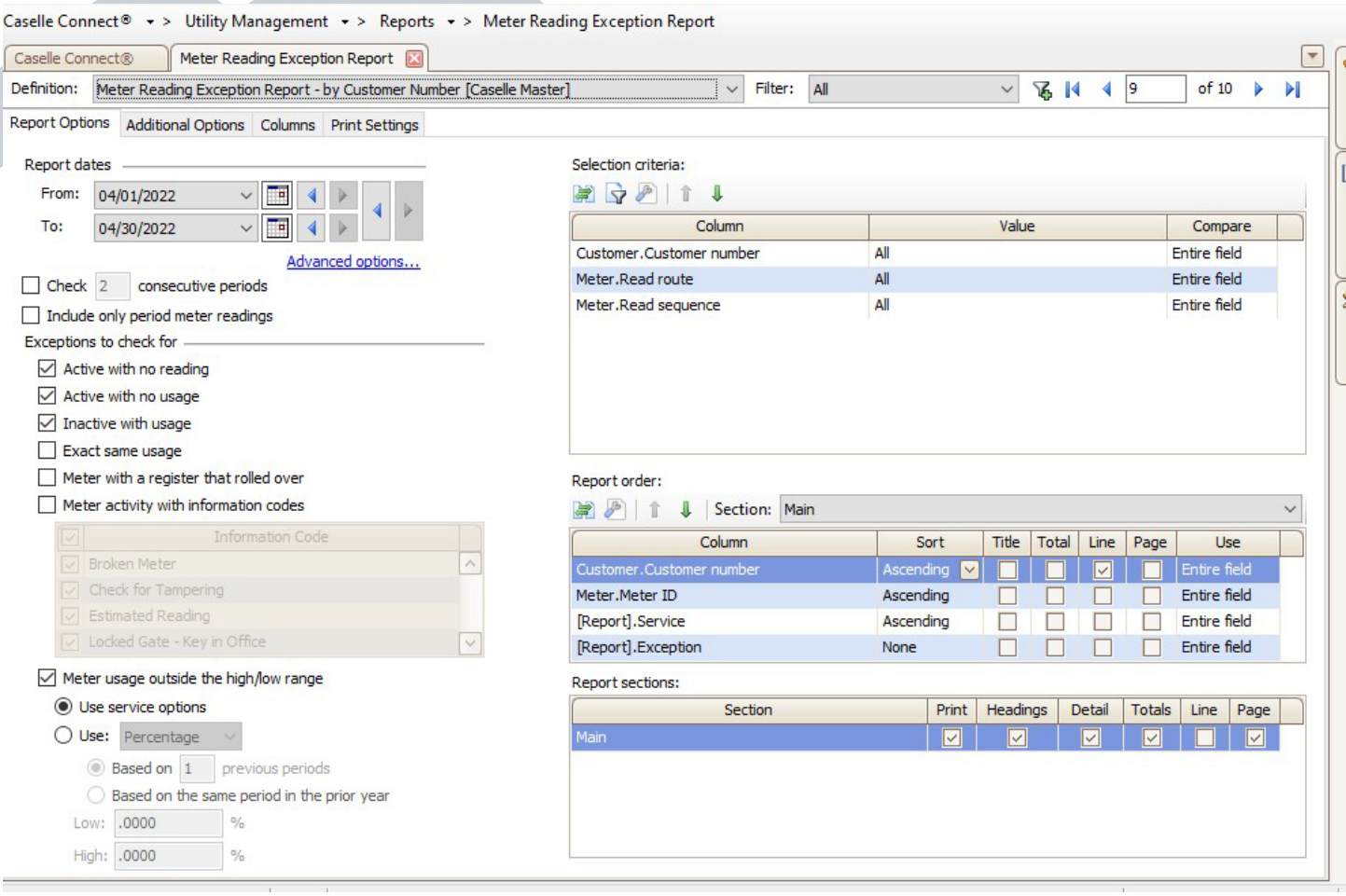
6. Meter Reading Proof Report
    a. Used to check for extremes – comparing customers to each other, rather than themselves
    b. Best exported to Excel - usually 1 service at a time
    c. Sort by Usage – highest to lowest and lowest to highest (helps find rollovers)
    d. Sort by Amount – highest to lowest and lowest to highest (will help find any credits)





	A	B	C	D	E	F	G	H	I	J	K	L	M
1		Customer			Register	Read	Read	Prior	Current	Current			
2	Rt/Seq	Number	Name	Service	Title	Code	Description	Read	Read	Usage	Multiplier	Amount	Msg
3	0-0	1.103.01	Joe's Drive-In	Water	Reading			8,744	8,745	1	1	0	
4					Reading			100	100	0	1		
5	1-100	1.101.01	Acme Manufacturing	Elec	Reading			22,597	0	0	10	0	
6					Demand Used			0	1.28	12.8	10		
7					kVAR Reading			0	0	0	10		
8					Net Reading			0	0	0	10		
9					Power Factor			0	0	0	10		
10	1-120	1.101.01	Acme Manufacturing	Water	High Compound			1,740.00	1,750.00	5	1	0	
11					Low Compound			0	10	8,265.00	1		
12	1-140	1.102.01	Norma's Hair Salon	Elec	Reading			55,712	0	0	1	0	
13					Demand Used			0	0	0	1		
14					Demand On-Peak			0	0	0	1		
15					Demand Off-Peak			0	0	0	1		
16					Power Factor			0	0	0	1		
17	1-160	1.102.01	Norma's Hair Salon	Water	Reading			540	0	0	1	0	
18	1-180	1.103.01	Joe's Drive-In	Elec	Reading			25,407	0	0	1	0	
19	1-220	1.104.01	Smith, Dr. Ronald T.	Elec	Reading			47,827	0	0	1	0	
20	1-240	1.104.01	Smith, Dr. Ronald T.	Water	Reading			1,347	0	0	1	0	
21	1-260	1.105.01	Jones, Dr. Harvey D.	Elec	Reading			5,694	0	0	1	0	
22	1-280	1.105.01	Jones, Dr. Harvey D.	Water	Reading			1,361	0	0	1	0	

7. Meter Reading Exception Report(s)
   a. Used to compare each customer to their previous readings
   b. Usually easier to read when broken down into various reports:
      i. No Reads – Inactive with Usage
      ii. High/Low Report
      iii. Estimated Reads
      iv. Consecutive Estimates v. Rollovers
      vi. No Consumption vii. 3 Consecutive Periods No Usage



Anycity Corporation

Meter Reading Exception Report
Report Dates: 02/01/2014 - 02/28/2014

Page: 1
Aug 01, 2017 10:47AM

Customer Number Order

Report Criteria:
Active meters with no reading, Active meters with no usage, Disconnected meters with usage, Meter usage outside the high/low range

Customer No Rte-Seq	Name Service Address	Meter ID Meter Location	Service	Register Title High/Low	Prior Read Prior Usage	Pr Com	Current Read Current Usage	Current Comment Exception
1.106.01 1-320	Simpson Reception Center 710 E Parkway	18547262 In bushes,10 ft South of Gazebo	Water	Demand Used /	 .0000		 .0000	 No Consumption
2.145.00 2-120	Spencer Properties 865 Palisades Dr	31842168 10 ft SW of stop sign	Water	Reading Tables/Tables	3,374 61		3,428 54	 High
2.147.01 2-200	Welling, Martin E. 791 Palisades Dr	34125667 5 ft North of gate, dogs name is	Water	Reading Tables/Tables	0 0		0 0	 No Reading

CASELLE®
CHARTING NEW TERRITORIES
CONQUERING NEW FRONTIERS