

Welcome!

Mass Energy Insight – Training Session 5:
Troubleshooting (1 of 2)



Introductions

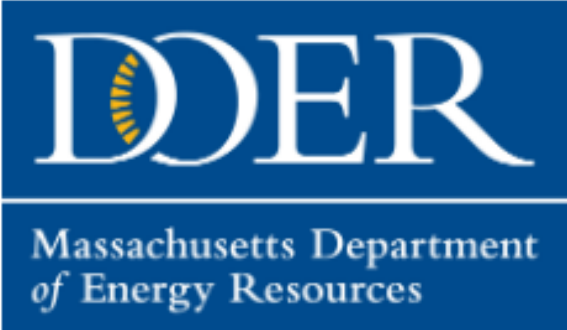
Presenters:

- Dugan Becker – Clean Energy Extension (CEE)
- Mary Kraus – CEE
- Gamaliel Lodge – Optimiser

Additional Facilitators / Resource People:

- John Snell – CEE Consultant
- Joanne Bissetta – Department of Energy Resources (DOER)
- Chelsea Kehne – DOER

Who We Are



What you will learn:

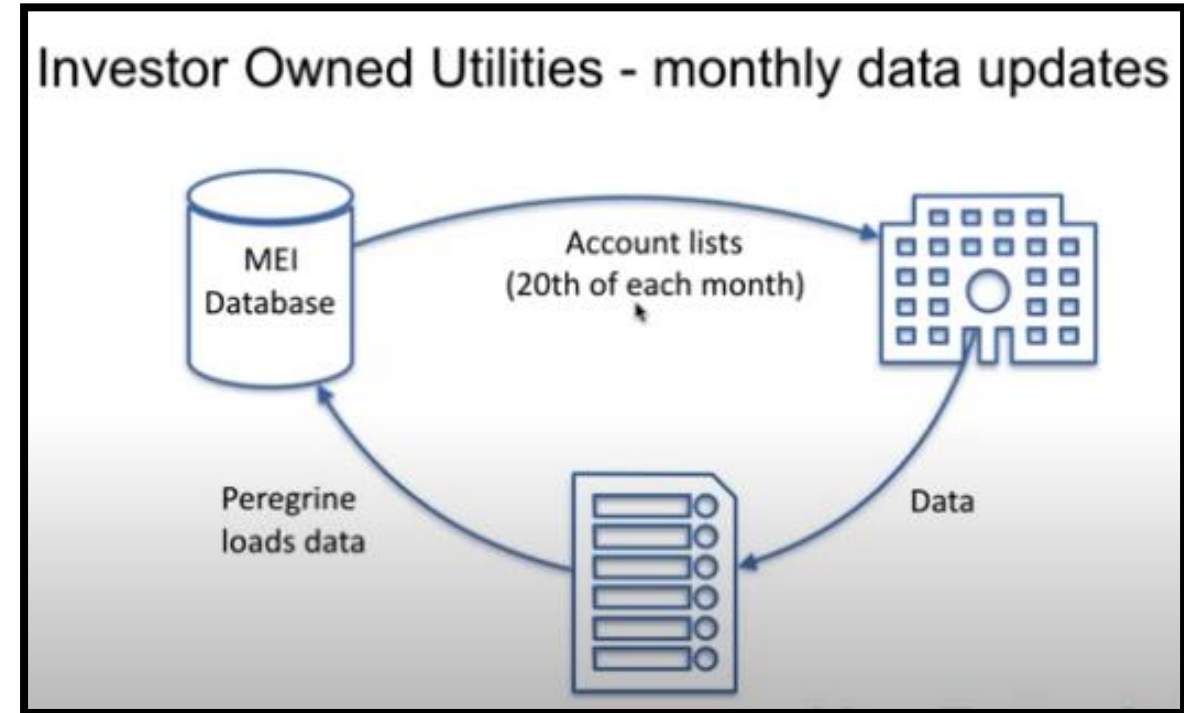
- Common issues that prevent Investor Owned Utility (IOU) account data population
- How to rectify “Null” items/accounts
- Weather Normalization issues, and how to address them

First Topic:

Possible Reasons an IOU account isn't populating

Recap – What is an IOU account?

- Investor Owned Utilities (IOUs):
 - Berkshire Gas
 - Columbia Gas
 - Eversource (Formerly NStar / WMECo)
 - National Grid
 - Unitil



Possible Reasons an IOU account isn't populating:

4 Common Scenarios –

- **Scenario #1:** The account was recently entered into MEI, and data hasn't arrived yet.
- **Scenario #2:** The account number was not formatted correctly when entered into MEI.
- **Scenario #3:** The account number has recently changed.
- **Scenario #4:** There is an issue on the IOU side, and MEI is not receiving data for the requested account.

Possible Reasons an IOU account isn't populating – Scenario #1

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 - **Explanation:** It can take 2+ months for a new account to receive data in MEI.

Possible Reasons an IOU account isn't populating – Scenario #1

- **Scenario #1:** The account was recently entered into MEI, and data hasn't arrived yet.
 - **Explanation:** It can take 2+ months for a new account to receive data in MEI.
 - **Step-by-step Solution:**

Possible Reasons an IOU account isn't populating – Scenario #1

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 - **Explanation:** It can take 2+ months for a new account to receive data in MEI.
 - **Step-by-step Solution:**
 1. When did you create the account? (If you're not sure, reach out to Support)
 - Data for all new accounts is requested on the 20th of each month, did you make the cut-off?

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 - **Step-by-step Solution:**
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 2. When was the last data delivery for this provider?



Set up or reorganize your departments, facilities, and accounts, and enter energy use information for one account at a time.



Update your data by spreadsheet:

Upload large amounts of energy use or competitive supply data by spreadsheet.

What's New

New FAQ - We've reorganized the FAQ, and added a lot of content, including questions we frequently get in support, but weren't in the FAQ yet. [Take a look.](#)

Newsletter Signup

[Click here to go to newsletter signup form.](#)

Recent Newsletters

- [2020-06 Designation and Trainings](#), 01 July 2020
- [2020-04 Trainings and Survey Highlights](#), 29 April 2020
- [2020-01 Survey Reminder](#), 21 January 2020

report to use, based on what you need to know.

Utility Data Updates

Utility	Last file rec'd	Last file loaded
Berkshire Gas	7/20/20	7/22/20
Columbia Gas	07/01/20	07/03/20
Eversource East Electric (formerly NSTAR)	07/05/20	07/07/20
Eversource East Gas (formerly NSTAR)	07/05/20	07/07/20
Eversource West Electric(formerly WMECo)	07/08/20	07/09/20
National Grid Electric	07/20/20	07/22/20
National Grid Gas	07/28/20	07/31/20
Unitil	08/12/20	08/12/20

On the MEI Homepage, scroll down to the “Utility Data Updates” table:

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 - **Step-by-step Solution:**
 1. When did you create the account? (If you're not sure, reach out to Support)
 - Data for all new accounts is requested on the 20th of each month, did you make the cut-off?
 2. When was the last data delivery for this provider?
 3. If your account was created within the last two months: **WAIT**. Otherwise, reach out to support if you believe data should have populated the account by now.

Possible Reasons an IOU account isn't populating – Scenario #2

- **Scenario #2:** The account number was not formatted correctly when entered into MEI.
- **Explanation:** Formatting errors prevent an account from receiving data, because IOUs will not recognize the number from our account request list unless formatted properly
- **Common Formatting Errors:**
 - Dashes in an account number
 - Leading Zeros/Prefix digits
 - Incorrect account number length
 - Typos & Trailing Spaces

Possible Reasons an IOU account isn't populating – Scenario #2

Common Formatting Errors

- **Dashes in an account number.** Dashes are not acceptable formatting for any IOU account number
 - E.g.: #1234-56789 instead of #1234567879
- **Leading Zeros/Prefix digits.** Check populated accounts from the same IOU to determine whether or not leading zeros/prefix digits should be included in an account number.
 - For example, WMECO account numbers contain a prefix of “54” on their bills, but this should not be included in MEI (e.g. #54123456789 versus #123456789)
 - If you don't have any active accounts of the same type to refer to, reach out to support for guidance.
- **Incorrect account number length.** Find the appropriate account number lengths for each IOU listed in the FAQ section
- **Typos & Trailing Spaces.** If the account number was entered incorrectly, it won't receive any data. This includes accidentally entering a space before or after the account number.

Possible Reasons an IOU account isn't populating – Scenario #2

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- **Common Formatting Errors:**
 - Dashes in an account number
 - Leading Zeros/Prefix digits
 - Incorrect account number length
 - Typos & Trailing Spaces
- **Step-by-step Solution:**
 1. Determine if the account in question contains any of the above formatting errors
 2. If yes, reject this account, then create a new account with proper formatting

Show accounts within the tree

- Sampleville(City, Town, or Reg. Entity) CREATE NEW
- Administration(Department) CREATE NEW
 - Administrative Complex(Complex) CREATE NEW
 - Administrative Vehicles(Facility) CREATE NEW
 - Town Clerk(Facility) CREATE NEW
 - Town Hall(Facility) CREATE NEW
 - 1246571068(Account)
 - 1461354020(Account)
 - 53467(Account)

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POWERING EFFICIENCY

Hello example@massenergyinsight.net | Home

view reports organize data upload a spreadsheet

Sampleville > Administration > Administrative Complex > Town Hall > Sampleville Municipal Electric, Account: 1246571068 (Electric)

INFO **ASSIGN/REASSIGN** COMPETITIVE SUPPLY USE

To associate this account with a department or building, or to change the current assignment (available at top of page), click **Choose new assignment**.

To reject this account because it does not belong to you, click **Reject (This account does not belong to this town or entity)**.

Choose new assignment Reject (This account does not belong to this town or entity)

Possible Reasons an IOU account isn't populating – Scenario #3

- **Scenario #3:** The account number has recently changed.
 - **Explanation:** If your IOU account has received data previously, then abruptly stopped receiving data, it is possible your account number has recently changed.

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- **Scenario #3:** The account number has recently changed.
 - **Explanation:** If your IOU account has received data previously, then abruptly stopped receiving data, it is possible your account number has recently changed.
 - **Solution:**
 1. Check a recent utility bill for that account, and verify if the account number listed on the bill matches the account number in MEI.
 2. If the account number has recently changed, do not reject your old account, instead mark the old account as “Inactive”.

Show accounts within the tree

- Sampleville(City, Town, or Reg. Entity)
 - Administration(Department)
 - Administrative Complex(Complex)
 - Administrative Vehicles(Facility)
 - Town Clerk(Facility)
 - Town Hall(Facility)
 - 1246571068(Account)
 - 1461354020(Account)
 - 53467(Account)

CREATE NEW
CREATE NEW
CREATE NEW
CREATE NEW
CREATE NEW
CREATE NEW

INFO | **ASSIGN/REASSIGN** | **COMPETITIVE SUPPLY** | **USE**

To add or edit account information, click on the text in the boxes below.
Some editing features are deactivated for account data received directly from the utility.

Account Info

Account Nickname	<i>Click to edit</i>	Fuel Type	Electric
Provider	Sampleville Municipal Electric	Notes	<i>Click to e</i>
Account Num	1246571068	Rate Code	
Active?	<input type="text"/> <input type="text"/> <input type="text"/>	Service Street1	<i>Click to e</i>
Meter	<i>Click to edit</i>	Service Street2	<i>Click to e</i>
		City	<i>Click to e</i>

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 - **Solution:**
 1. Check a recent utility bill for that account, and verify if the account number listed on the bill matches the account number in MEI.
 2. If the account number has recently changed, do not reject your old account, instead mark the old account as “Inactive”.
 3. Create a new account with the updated account number

Possible Reasons an IOU account isn't populating – Scenario #4

- **Scenario #4:** There is an issue on the IOU's end, and MEI is not receiving data for the requested account.
- **Explanation:** Occasionally, there are issues on the IOU end, and accounts can get accidentally left out of their data delivery files.
- **Solution:**
 - Reach out to MEI Support, and we will work with the IOUs directly to make sure these issues are addressed.

Next Topic:

How to rectify “Null” Items in MEI

What does “Null” mean?

“Null” simply means there is a lack of data.

There are multiple occurrences of “Null” in MEI:

UNACCEPTABLE cases of “Null”:

- Accounts with no usage data
- Accounts not associated with a Department or Facility
- Facilities not assigned a Category/Subcategory

ACCEPTABLE cases of “Null”:

- Accounts not associated with a Complex or Unit
- Accounts without meter numbers *
- Bill Alerts Report

* Meter numbers are required for multi-meter accounts only.

How to Identify and Fix Null Items

To recap:

UNACCEPTABLE cases of “Null”:

- Accounts with no usage data
 - Identify using the Data Loaded Reports
 - If delivered fuel, enter usage data. If IOU, double-check acct number or reach out to Support.

How to Identify and Fix Null Items

To recap:

UNACCEPTABLE cases of “Null”:

- Accounts with no usage data
 - Identify using the Data Loaded Reports
 - If delivered fuel, enter usage data. If IOU, double-check acct number or reach out to Support.
- Accounts not associated with a Department or Facility
 - Identify using the Data Loaded Reports
 - Relocate accounts to appropriate facility/department

How to Identify and Fix Null Items

To recap:

UNACCEPTABLE cases of “Null”:

- Accounts with no usage data
 - Identify using the Data Loaded Reports
 - If delivered fuel, enter usage data. If IOU, double-check acct number or reach out to Support.
- Accounts not associated with a Department or Facility
 - Identify using the Data Loaded Reports
 - Relocate accounts to appropriate facility/department
- Facilities not assigned a Category/Sub-category
 - Identify with the Setup Completeness Report
 - Select appropriate category/subcategory on the Facility’s Info Tab

Setup Completeness Dashboard

These tables show you work you still need to do to set up your city, town or district. Click on an item name to go directly to that item and update it. The item will open in another browser window or tab. You can then make edits which will appear in the reports the next business day. If there's nothing in a table, then you've completed that task!

Assign these accounts

These accounts have not been assigned to a department, complex, building or unit. Assign these accounts to ensure their data is reported properly.

1	Baltimore Ga..	Electric	
21-45	BWSC	Water	
2009 Town H..	Other	Oil	

Assign a category to these items

Administrative Office
Fire Station 6
oreilly building
Doiron Hall of Wisdom
College Department
Town Hall
new stuff noot in baseline
Street Lights
Jim B Facility - Fire Station
Vehicles
Vehicles

This table shows you how many facilities you have created, by facility Category and Subcategory. To expand or collapse click the plus (+) or minus (-) symbols.

Facility Counts by Type

Facility Category	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Building	1	2	3	3	3	2
Grand Total	1	2	3	3	3	2

Assign a subcategory to these items

Elementary Building
Administrative Office
Ames Juvenile Detention Facility
Fire Station 6
oreilly building
Doiron Hall of Wisdom
cushing
College Department
building 1
Town Hall
new stuff noot in baseline
Wood Pellett Shed

Enter a square footage for these buildings

Elementary Building
Ames Juvenile Detention Facility
Oreilly Building
cushing
building 1
Wood Pellett Shed
test
Jim B Facility - Police Station
Maynard High
Kennedy Service Building
Broccoli Building
Neals Police Station

Next Topic:

Weather Normalization

What is “Weather Normalization” and Why Does it Matter?

Weather Normalization is a calculation that estimates a building’s energy usage independent of fluctuations in weather patterns.

In other words, weather normalization removes weather as a variable when tracking your annual energy usage trends.

This allows you to compare energy usage from year to year, even if the weather was drastically different.

Reporting weather normalized usage values is a requirement for the Green Communities Annual Report.

Weather Normalization – An Example:

Year 1:

- Mild winter.
- Building energy usage: 10,000 MMBTU.
- Improvements to building.

Year 2:

- Severe winter.
- Building energy usage: 9,500 MMBTU.

How much did the energy performance of the building improve?

Weather Normalization – An Example:

Adjustment to usage data to account for differing weather conditions, for more accurate comparisons from year to year.

	Building Energy Usage (MMBTU)	
	Non-Weather Normalized	Weather Normalized
Year 1 - Mild Winter	10,000	11,000
Year 2 - Severe Winter	9,500	8,500
Improvement	5%	23%

How Weather Normalization is Calculated in MEI

- Weather normalization uses statistical methods to determine the relationship between weather and usage.
- Relationship used to predict usage in typical year
- What weather metric do you use?
 - Most commonly used metric is degree days
 - MEI uses average temperature over bill period rather than degree days
 - Relationship between average temperature and usage/day
 - Why? Daily temperature variation is too fine grained for many commercial buildings.

Weather Data Sources

- Contemporaneous temperatures from NOAA's NCDC using 22 stations around MA
- Typical/Average temperatures from NOAA's "30 Year Climate Normals"
 - Climate Change: 30-year averages have colder winters than most recent years
 - Weather normalized usages are typically be higher than the actual usage
 - 2014 and 2015 are exceptions

Issues with Weather Normalization

- Accounts with less than 365 days worth of data will not be included in weather normalization calculations
- Accounts with lumped annual sums (e.g. 12 months of usage represented in a single entry) will not be adjusted in weather normalization calculations
 - Typically you want at least 6 data points per year as a rule of thumb.

How to Identify and Fix Weather Normalization Issues

To Recap:

- Weather normalization cannot be completed without 365 days worth of data
 - The system calculates the number of days covered by each bill by using the end date of the previous bill as a start date for the next.
 - In order to be sure your first bill is counted, you must enter a zero bill before it to mark the date that bill starts.
 - This zero bill must fall exactly 365 days prior to the last bill of the fiscal year
 - E.g. If your last bill for FY20 is 03/27/20, add a zero usage on 3/27/19
 - This is particularly important with delivery fuels because there is often a large gap in deliveries during the summer.

Weather Normalization – Additional Information

Occasionally weather normalized usage values can change retroactively.

Potential Causes:

- Historical data has been changed
- Weather normalization algorithms have been updated
- Weather data has changed
 - E.g. the next NOAA weather dataset update is due in mid-2021

Coming Soon...

A New Weather Normalization System

- Currently weather normalization calculations are conducted on the account level
- Account level analysis leads to data problems
 - Multiple, simultaneous delivery accounts – incomplete data in each account
 - Changes in account number – reset analysis after change
- Transitioning to building level weather normalization calculations
 - All records for each fuel type treated as single account
 - More complete data sets
- Hoping to release before annual reports

Thank you for coming!

Any Questions?