MDMS *UPDATE*
~ METER DATA MANAGEMENT SYSTEM ~

US Army Corps of Engineers®

FROM THE PROGRAM MANAGER

Welcome to our June - July 2020 issue of the *Meter Data Management System Update (MDMS),* designed to keep you informed on the growth and latest developments of the Meter Data Management System and the Army Metering Program.

Your MDMS Program Team has been hard at work adding more and more functionality to further help Energy Managers, REMs, Installation Managers, and others with viewing, analyzing and trending usage data and performance metrics. This functionality should be available to all users by late August or early September.

There are four new modules: Usage FY Comparison, Duty vs. Non-Duty Analyzer, Category Code Performance Metrics, and Building EIA Benchmarking-EUI. Each of these new modules will be detailed in the following pages. Read up now so that you are familiar with each module and its intended use and benefits when they become available. In addition, these modules will be rolled into the training webinars.

Training continues to go strong with 12-14 sessions being offered each month. Two new courses will be offered twice at the end of September: 4th Level Benchmarking and Advanced Metrics for Systems. These will also be recorded and added to the Video Library in MDMS.

As always, our mission is to improve the MDMS experience for end users. Your input is valuable, and we welcome your feedback via the Army Meter Service Desk (AMSD) at: usarmy.coe-huntsville.cehnc.mbx.armymeterhelp@mail.mil
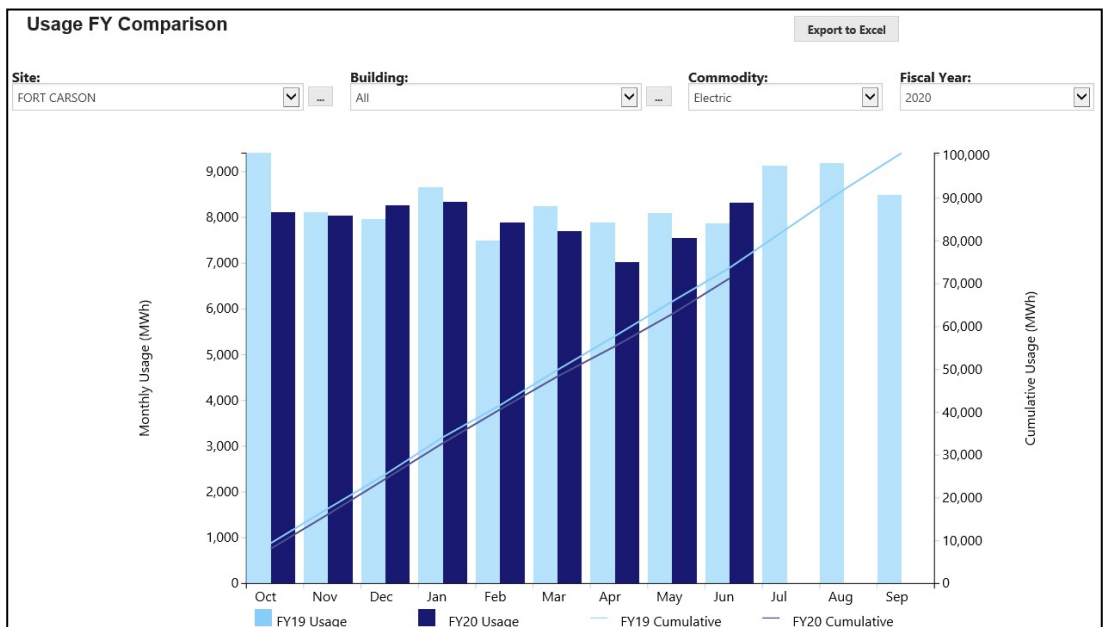
USAGE FY COMPARISON

This report module is found on the Energy Management > Usage Summary sub-menu. This report graphically compares monthly and cumulative usage for the selected site, building, commodity and fiscal year. When a user initially clicks the Usage FY Comparison report link, it will display the graph for the user's default site, the first building for that site, the default commodity (electric) and the default fiscal year (current), as shown to the right.

Color-coded vertical bars represent monthly usage and color-coded diagonal lines represent cumulative usage as follows:

- <u>Light blue</u>: Previous fiscal year.
- <u>Dark blue</u>: Currently selected fiscal year.

(Continued on pg. 2)

BUILDING STRONG®

USAGE FY COMPARISON (CONT. FROM PG. 1)

To change any of the selection criteria, the user may use the dropdown arrows to the right of the existing site, building, commodity or fiscal year fields to access the picklist for that field. The user may also select the ••• buttons further to the right of the site and building fields to access the Select Site and Select Building dialog windows, where users can search and select new values by clicking the Select button for the item desired. The report will refresh automatically with the new results. The user may export the tabular results of this report via the Export to Excel option, as shown below.

Usage FY Comparison				
REDSTONE ARSENAL/All Buildings				
2020/2019				
Electric Usage				
Month	FY (2020) Usage (MWh)	FY (2019) Usage (MWh)	2020 Cumulative (MWh)	2019 Cumulative (MWh)
Oct	6148.96105	5994.33644	6148.96105	5994.33644
Nov	5546.02574	5566.69745	11694.98679	11561.03389
Dec	5519.95995	5975.44313	17214.94674	17536.47702
Jan	5737.16769	5927.53037	22952.11443	23464.00739
Feb	11039.90845	4635.27321	33992.02288	28099.2806
Mar	10777.89953	5974.35386	44769.92241	34073.63446
Apr	8692.21349	6042.67617	53462.1359	40116.31063
May	9384.82381	6604.24351	62846.95971	46720.55414
Jun	11660.11864	6562.6901	74507.07835	53283.24424
Jul	12743.8771	6826.55302	87250.95545	60109.79726
Aug	0	6636.22342		66746.02068
Sep	0	6434.52921		73180.54989

CATEGORY CODE PERFORMANCE METRICS

The Category Code Performance Metrics report can be found on the Energy Management > Benchmarking sub-menu and generates a tabular listing of category code performance metrics for the buildings in the selected organization (HQDA, Command, Region, Installation, Site, or Climate Zone). As shown below, the report includes Category Code, Category Code #, Building Count, Bottom 25th Percentile Watts/SF, Top 25th Percentile Watts/SF, Median Watts/SF, Bottom 25th Percentile EUI, Top 25th Percentile EUI, Median EUI, Bottom 25th Percentile Baseload as % of Consumption, Top 25th Percentile Baseload as % of Consumption, Median Percentile Baseload as % of Consumption.

Region	Remove
READINESS	✕

⬆ Export to Excel

25 ⌄ records per page   Search: [ ]

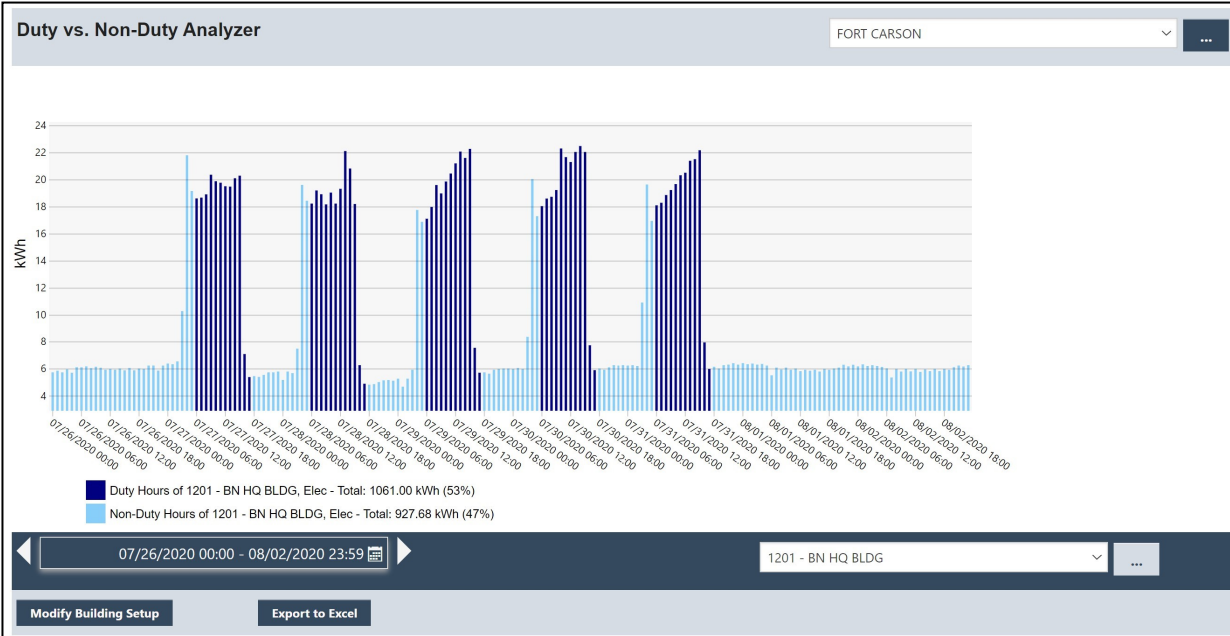| Category Code	Category Code #	Building Count	Bottom 25th Percentile Watts/SF	Top 25th Percentile Watts/SF	Median Watts/SF	Bottom 25th Percentile EUI	Top 25th Percentile EUI	Median EUI	Bottom 25th Percentile Baseload as % of Consumption	Top 25th Percentile Baseload as % of Consumption	Median Baseload as % of Consumption
ABN EQ/PAR	21881	7	0.248	0.77	0.265	57.521	96.69	66.864	8.192	30.51	12.861
AC COMP MA	21120	5	0.083	0.231	0.095	10.69	55.367	29.9	12.454	41.528	23.322
AC ENG TST	21140	1	0.55	0.55	0.55	125.093	125.093	125.093	13.142	13.142	13.142
AC MAINT B	21114	6	0.088	0.174	0.124	8.948	30.08	24.076	12.8	26.076	20.363
AC MAINT H	21110	58	0.054	0.322	0.205	3.833	47.439	27.022	17.682	45.694	28.561
AC PAINT S	21130	1	0.03	0.03	0.03	3.377	3.377	3.377	26.702	26.702	26.702
AC PARTS S	21113	1	0.485	0.485	0.485	15.222	15.222	15.222	95.148	95.148	95.148
AC PROD PA	44210	5	0.211	0.645	0.253	13.711	24.883	16.226	37.555	46.669	45.89
AC/HEAT PL	89127	7	0.29	13.592	4.761	144.678	2319.286	1555.922	6.545	21.883	16.441
AC/REF PLA	82610	2	11.152	16.533	13.842	3252.905	7114.02	5183.462	6.946	10.247	8.597
ACCESS CNT	14113	8	0.842	20.951	7.415	76.695	1278.944	389.551	22.882	72.488	49.644
ACES FAC	74025	7	0.215	0.426	0.331	0.939	42.186	3.616	28.924	521.779	273.397

Showing 1 to 25 of 206 entries   First Previous | 1 2 3 4 5 | Next Last

DUTY VS. NON-DUTY ANALYZER

The Duty vs. Non-Duty Analyzer module is found on the Energy Management > Usage Details sub-menu and graphically displays energy consumption, while highlighting inefficiencies during off-duty hours. Initially the report will display the graph for the user's default site and the first building for that site, over the last 7 days, as shown below.

To change any of the selection criteria, the user may use the dropdown arrows to the right of the existing site and building fields to access the picklist for that field. The user may also select the buttons further to the right of the site and building fields to access the Select Site and Select Building dialog windows, where users can search and select new values by clicking the Select button for the item desired. The user may click the symbol to enter a different start date or select one of the presets. The report will refresh automatically with the new results. This user may export the tabular results of this report via the Export to Excel option.

The user may click the Modify Building Setup button to be redirected to the Duty vs. Non-Duty Analyzer Setup to modify building duty hours. If the user had previously established duty hours, they are displayed for the user's default site and selected building, as shown below right.

The user may click the site drop-down list or the button to select a new value. If a selection dialog appears, search for and click the Add button for the item desired. The user may click the Apply to building(s) or Apply to all buildings radio button to select one, many or all buildings. If a selection dialog appears, search for and click the Add button for the item desired. The user may click any of the symbols to enter the [Start] – [End] Duty Hours or select one of the presets. When done, the user will click the Apply Setup button to be redirected back to the Duty vs. Non-Duty Analyzer module.
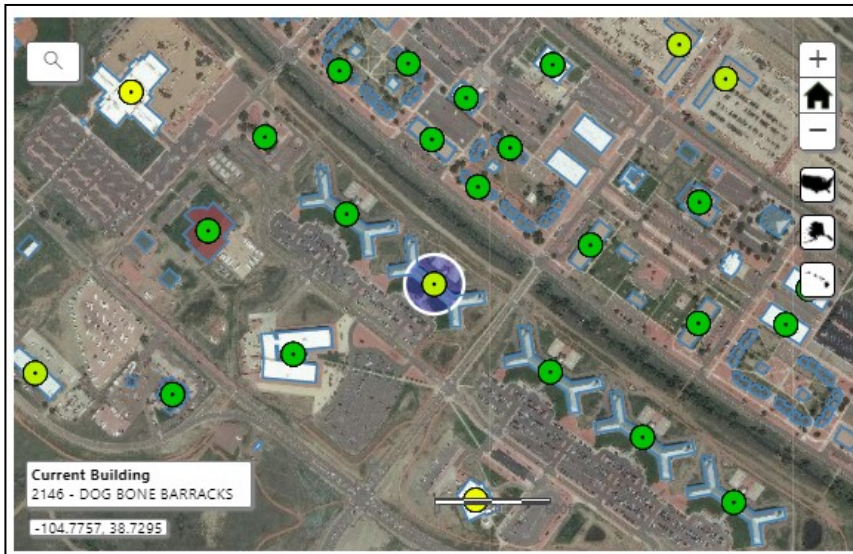
BUILDING EIA BENCHMARKING-EUI

The Building EIA Benchmarking-EUI report is found on the Energy Management > Energy Use Intensity sub-menu, and generates a report containing four quadrants which graphically compare the Energy Use Intensity (EUI) for a specific site, building, commodity and time period to the U.S. Energy Information Administration (EIA) benchmark. Initially, the report displays the user's default site, building (first for that site), commodity (total gas & electric) and time period (previous 12 months), as shown below.

The user may click the Site or Building drop-down lists, or the [...] buttons to select new values. If a selection dialog appears, the user can search for and click the Add button for the item desired. The user can select the corresponding radio button to change the commodity. The report will refresh automatically with the new results.

The upper-left quadrant displays the GIS Map for the selected site, as shown below left. The user can click the [+] symbol at top right of this quadrant to zoom in to the selected building, highlighted by the purple circle in the center of the map.

Color-coded icons represent metered buildings and their reporting status, based on the following thresholds:

- **Green**: Building's EUI for the selected time period is lower than the EIA benchmark for the building's Principal Building Activity.
- **Yellow**: Building's EUI for the selected time period is higher than the EIA benchmark for the building's Principal Building Activity.
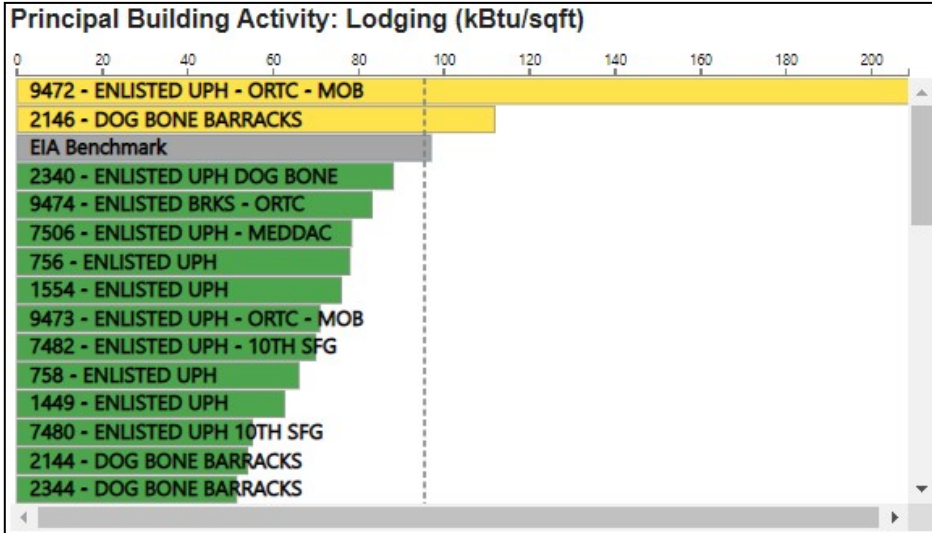
The user can click on a different icon from the GIS Map to select a different building, which updates all displays on the main report. *(Continued on pg.5)*

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BUILDING EIA BENCHMARKING-EUI (CONT. FROM PG. 4)

The lower-left quadrant displays a horizontal bar chart of all buildings for the selected site with the same Principal Building Activity as the selected building, as shown below left.

Principal Building Activity: Lodging (kBtu/sqft)

Color-coded bars represent the following:
- Green: Building's EUI for the selected time period is lower than the EIA benchmark for the building's Principal Building Activity.
- Yellow: Building's EUI for the selected time period is higher than the EIA benchmark for the building's Principal Building Activity.
- Gray: EIA Benchmark for the building's Principal Building Activity.

The user can click on a different horizontal bar on the chart to select a different building. which updates all displays on the main report.
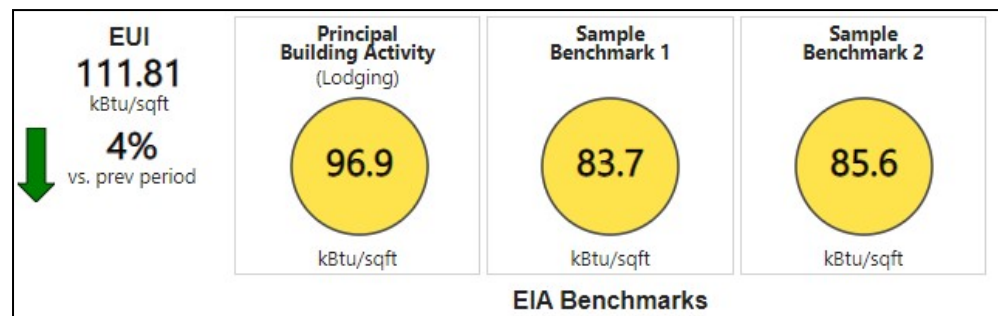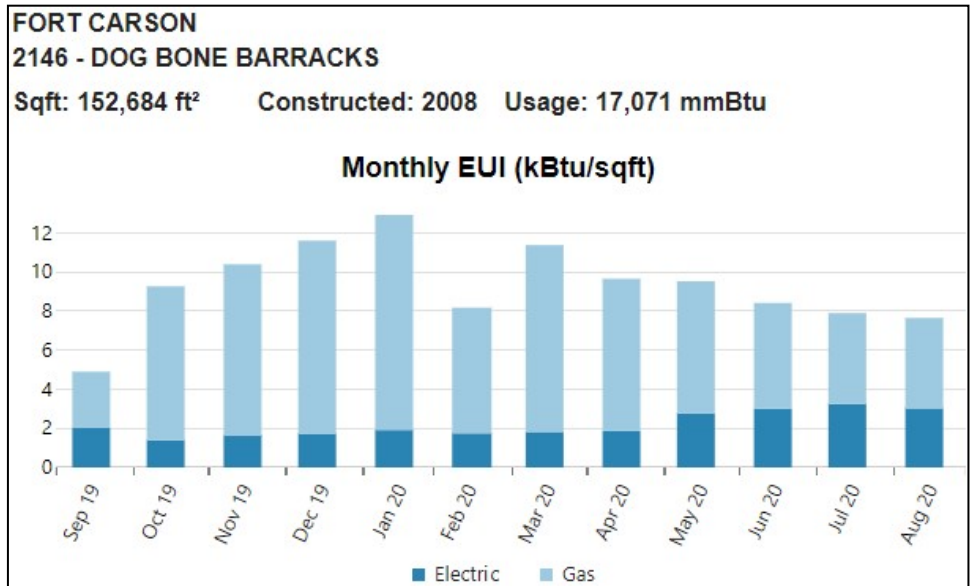
The upper-right quadrant displays a vertical bar chart showing the monthly EUI for that building for each of the 12 months that make up the selected time period, as shown to the right.

Color-coded vertical bars represent the monthly EUI for the selected commodity as follows:
- Dark blue: Electric.
- Light blue: Gas.
- Light blue over Dark blue: Total electric and gas.

The lower-right quadrant graphically compares the EUI to the EIA Benchmarks, as shown below. The EUI for the selected site, building, commodity and time period appears in the upper left of this quadrant.

Percentage increase or decrease in EUI compared to the 12 months before the selected time period

FORT CARSON
2146 - DOG BONE BARRACKS
Sqft: 152,684 ft²   Constructed: 2008   Usage: 17,071 mmBtu

Monthly EUI (kBtu/sqft)

appears under the EUI. If there is no usage for all 12 months before the selected time period, N/A is displayed. The arrow is red and points up if percentage increased. The arrow is green and points down if percentage decreased.

EUI
111.81 kBtu/sqft
▼ **4%** vs. prev period

Principal Building Activity (Lodging)
96.9 kBtu/sqft

Sample Benchmark 1
83.7 kBtu/sqft

Sample Benchmark 2
85.6 kBtu/sqft

EIA Benchmarks

The three areas to the right of the EUI show EIA Benchmarks for the building's Principal Building Activity (left), square footage (center) and year of construction (right). The circle is yellow if the EUI is above this benchmark or green if below.