

**ALASKA RAILBELT UTILITY  
GENERATION AND  
TRANSACTION DATA**

**Regulatory Commission of Alaska  
August 14, 2020  
Version 5**

## Overview

The Railbelt electrical grid is defined as the service areas of six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. Sixty-five percent of the Alaskan population lies within the Railbelt region. These utilities are:

- Golden Valley Electric Association (GVEA)
- Chugach Electric Association (Chugach)
- Matanuska Electric Association (MEA)
- Homer Electric Association (HEA)
- Anchorage Municipal Light & Power (ML&P)
- the City of Seward Electric System (SES)

The southern portion of the Railbelt (Mat-Su Valley, Anchorage, and the Kenai Peninsula) are highly dependent on natural gas as a source of electricity and heat. The northern portion of the Railbelt (Fairbanks and other communities in the Interior) relies on petroleum fuels in addition to natural gas, coal, and hydroelectric imports from the south. Petroleum fuels provide the majority of energy used for transportation across the entire state.

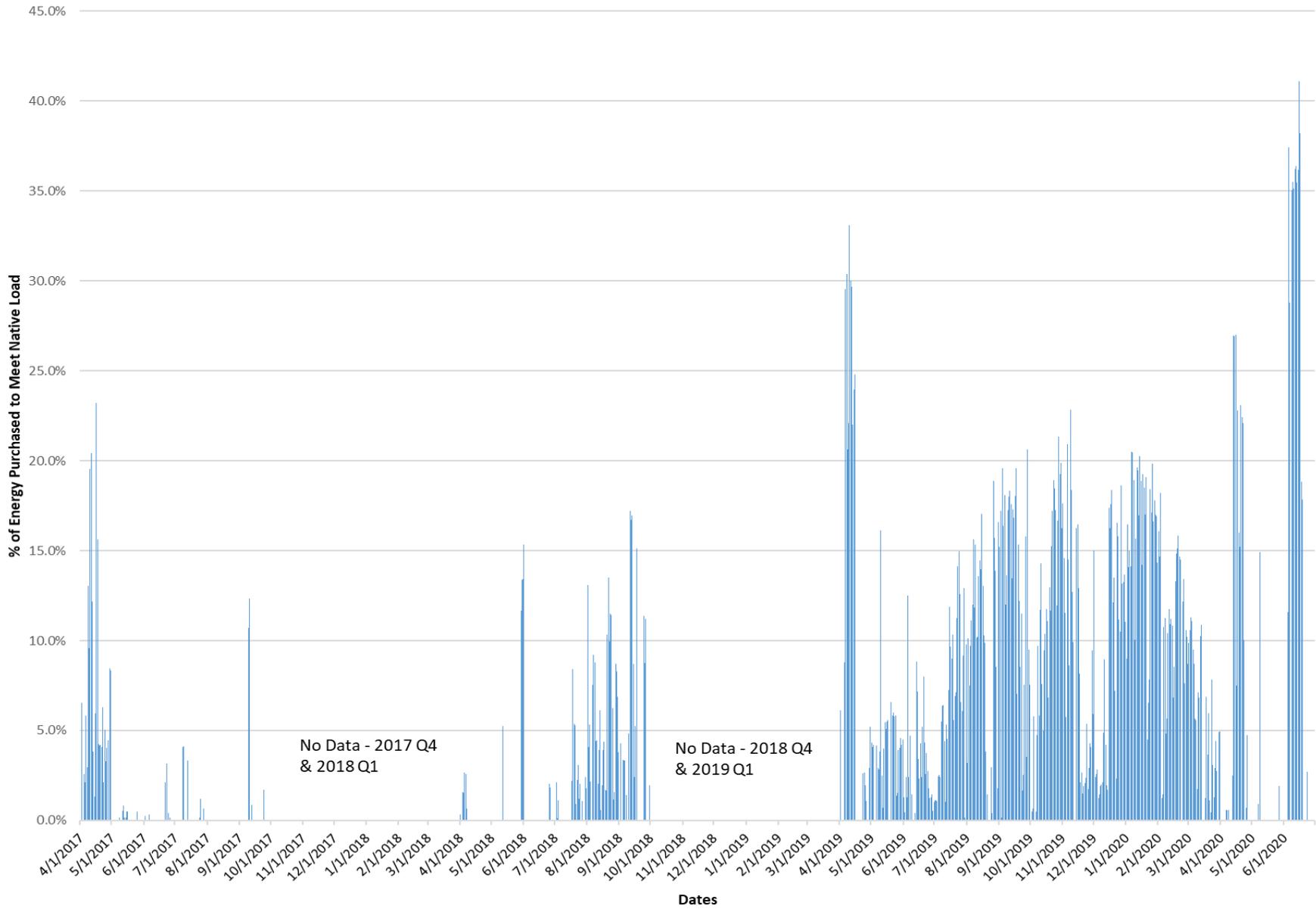
The Commission has requested daily data regarding generation (resource dispatch w/heat rate), economy energy sales and purchases, spin transactions, and native load. This information was requested by two different orders in Docket I-15-001. The initial data request in Order I-15-001(9) was for years 2017 – Q2, Q3 and 2018 – Q2, Q3 only. Order I-15-001(14), issued April 26, 2019, requires the Railbelt utilities to file the same information on a quarterly basis, starting with 2019 – Q2, until the Regulatory Commission of Alaska (Commission) issues an order terminating the data filing request. Orders I-15-001 (11) and (12) granted confidential status to certain utility specific data and therefore the information presented will be in aggregate form.

Below are a few notes regarding the graphs:

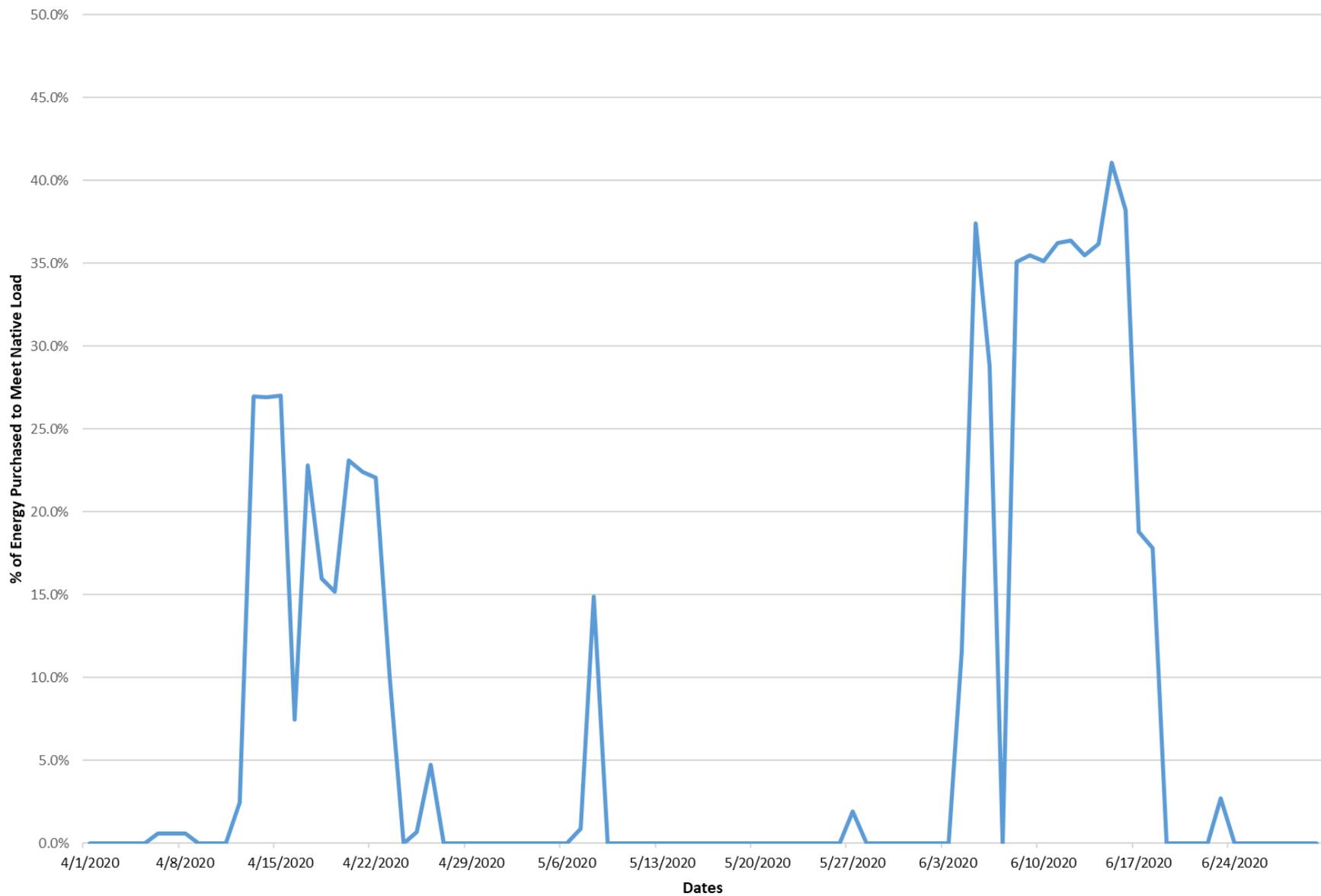
- The “Energy Purchased” reflects the thermal energy purchased by a utility.
- The “\$/MWh” average price reflects the removal of the cost-of-gas component for the GVEA purchases.
- SES does not generate electricity and therefore they did not file information.
- The periods of “No Data” reflect the Commission not requesting data and not to imply the utilities do not have the data.

Subsequent revisions/updates to this report are expected to be published each quarter. Previously published quarterly charts can be seen in Appendix A. As more data is collected and analyzed, the format and/or structure of this report may be revised.

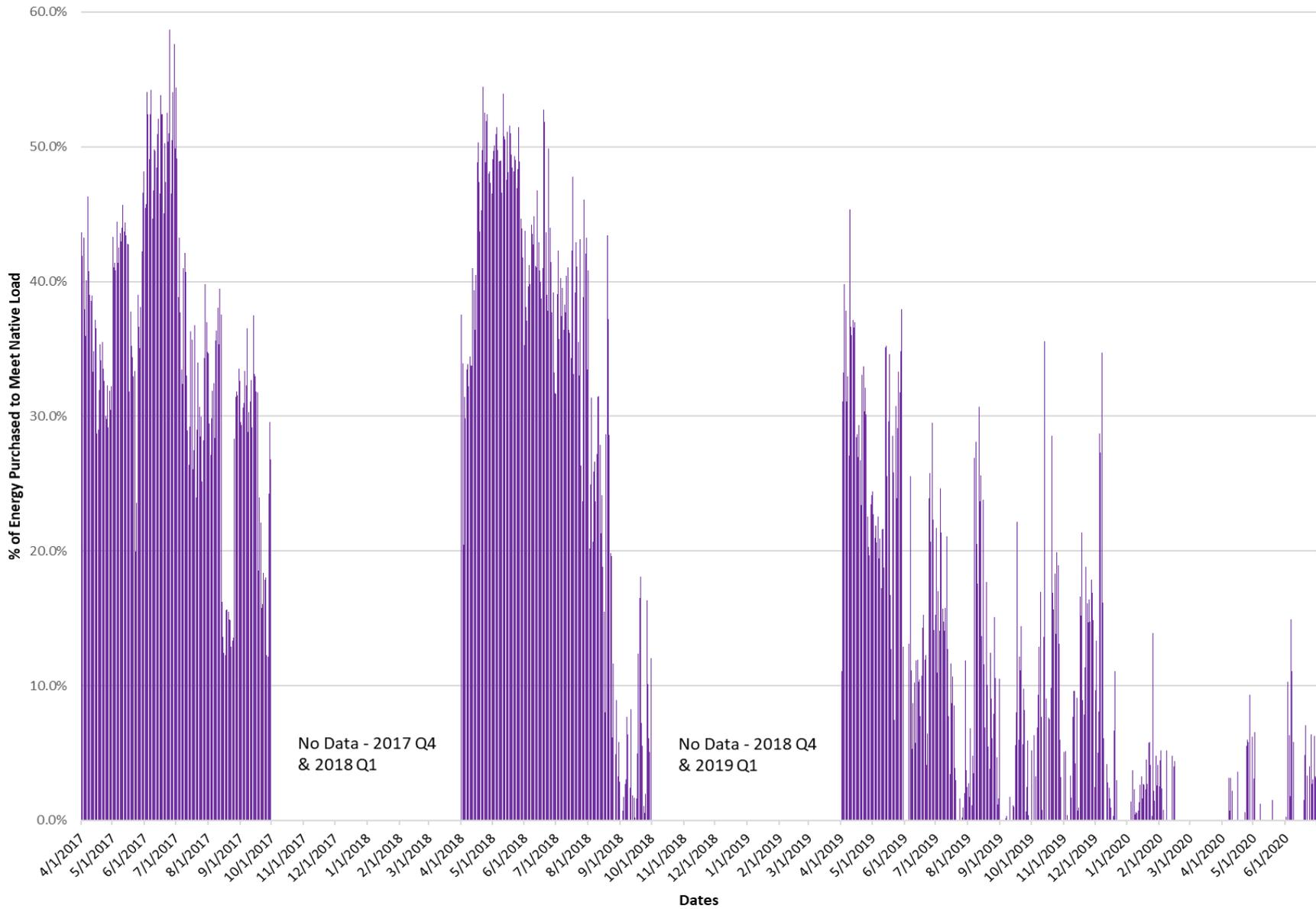
Chugach - % of Energy Purchased to Meet Native Load (2017 to 2020 Q2)



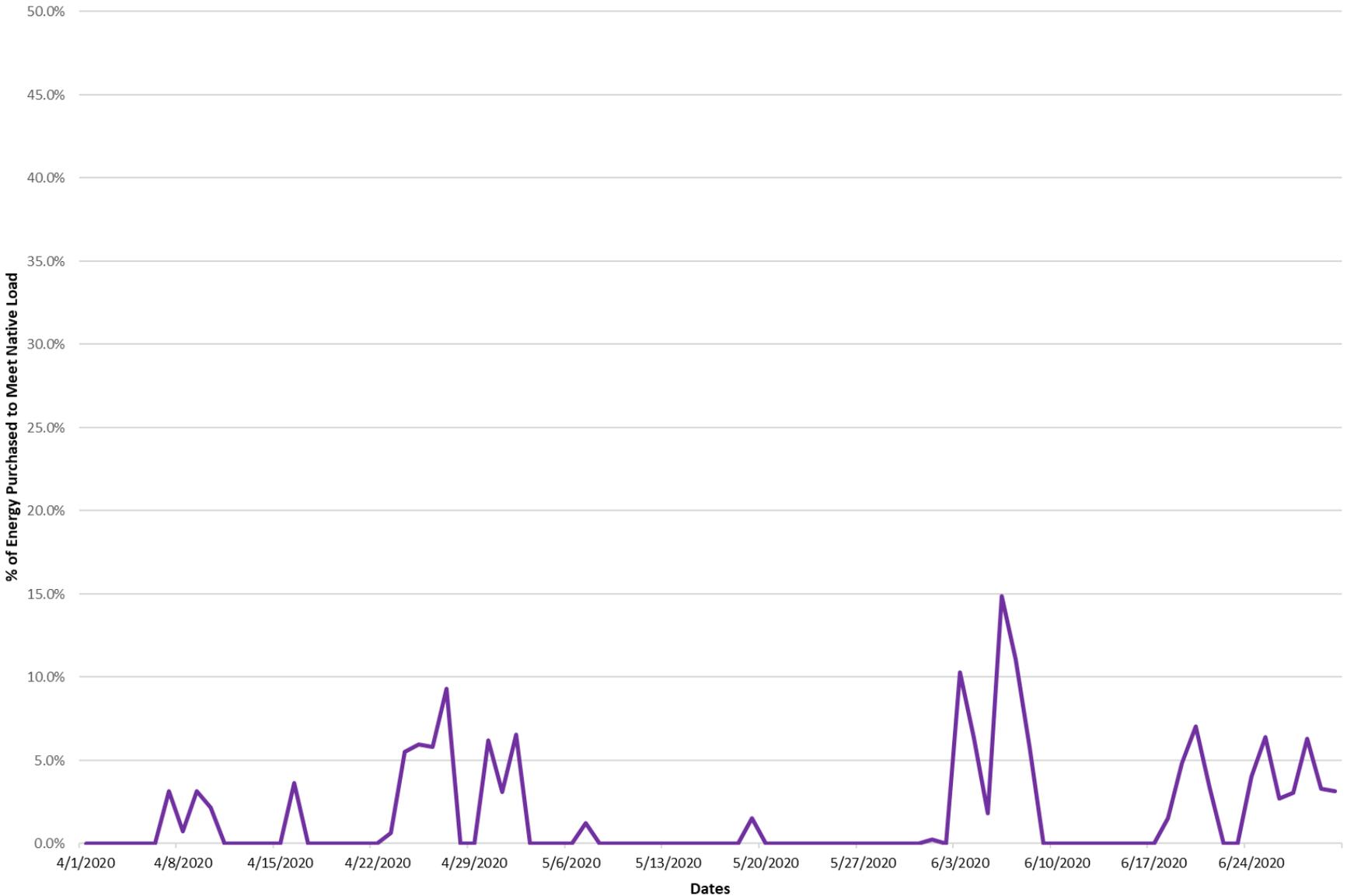
Chugach - % of Energy Purchased to Meet Native Load (2020 Q2)



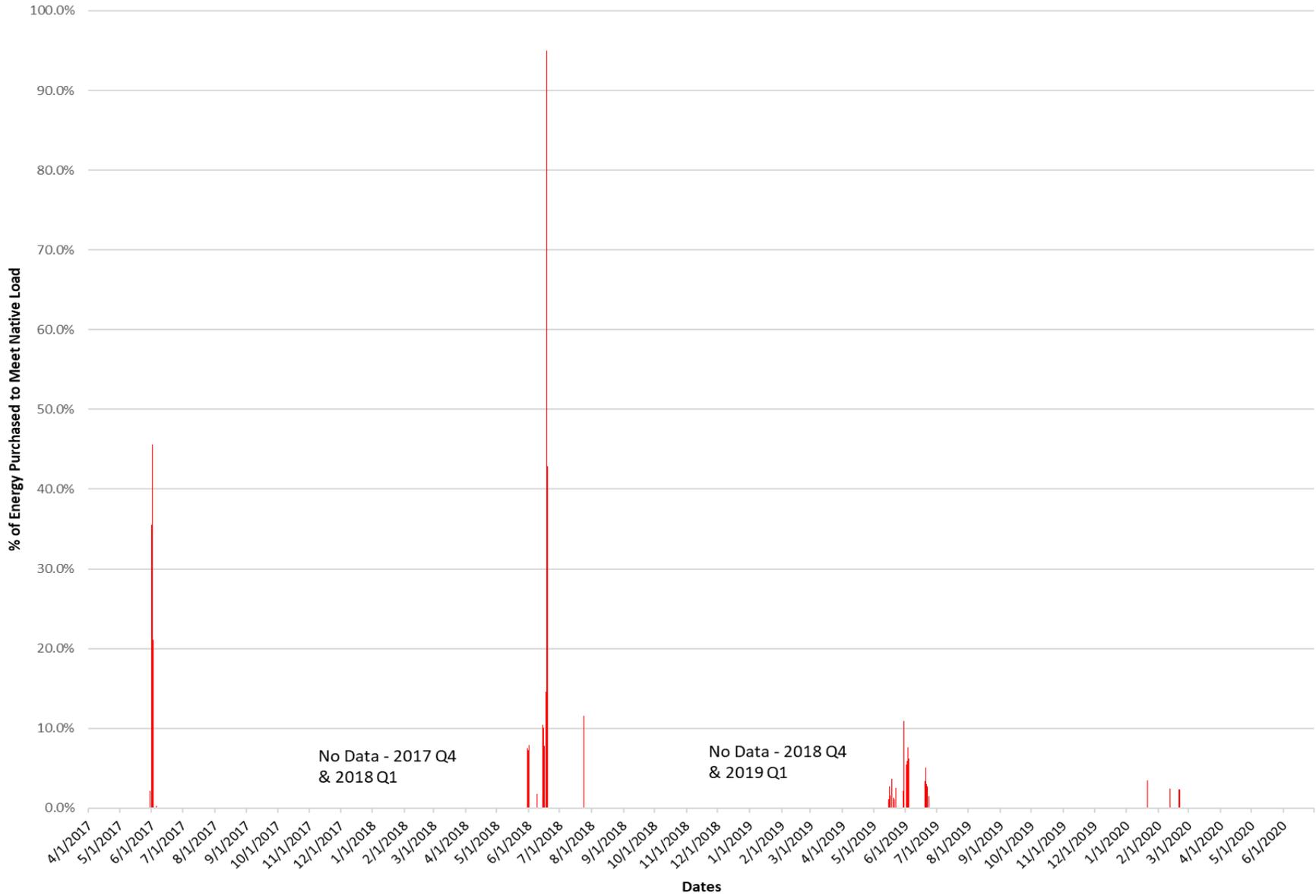
**GVEA - % of Energy Purchased to Meet Native Load (2017 to 2020 Q2)**



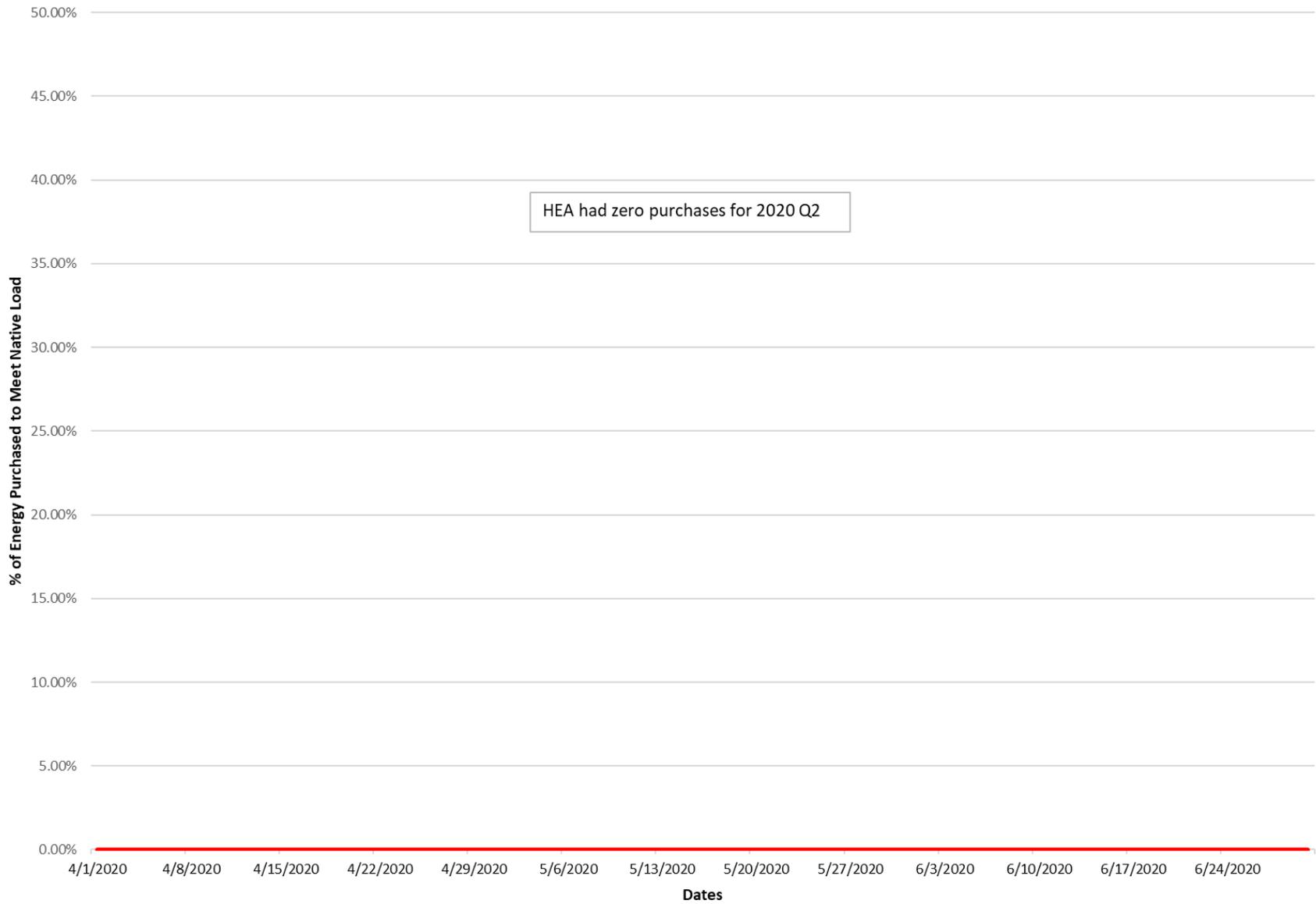
GVEA - % of Energy Purchased to Meet Native Load (2020 Q2)



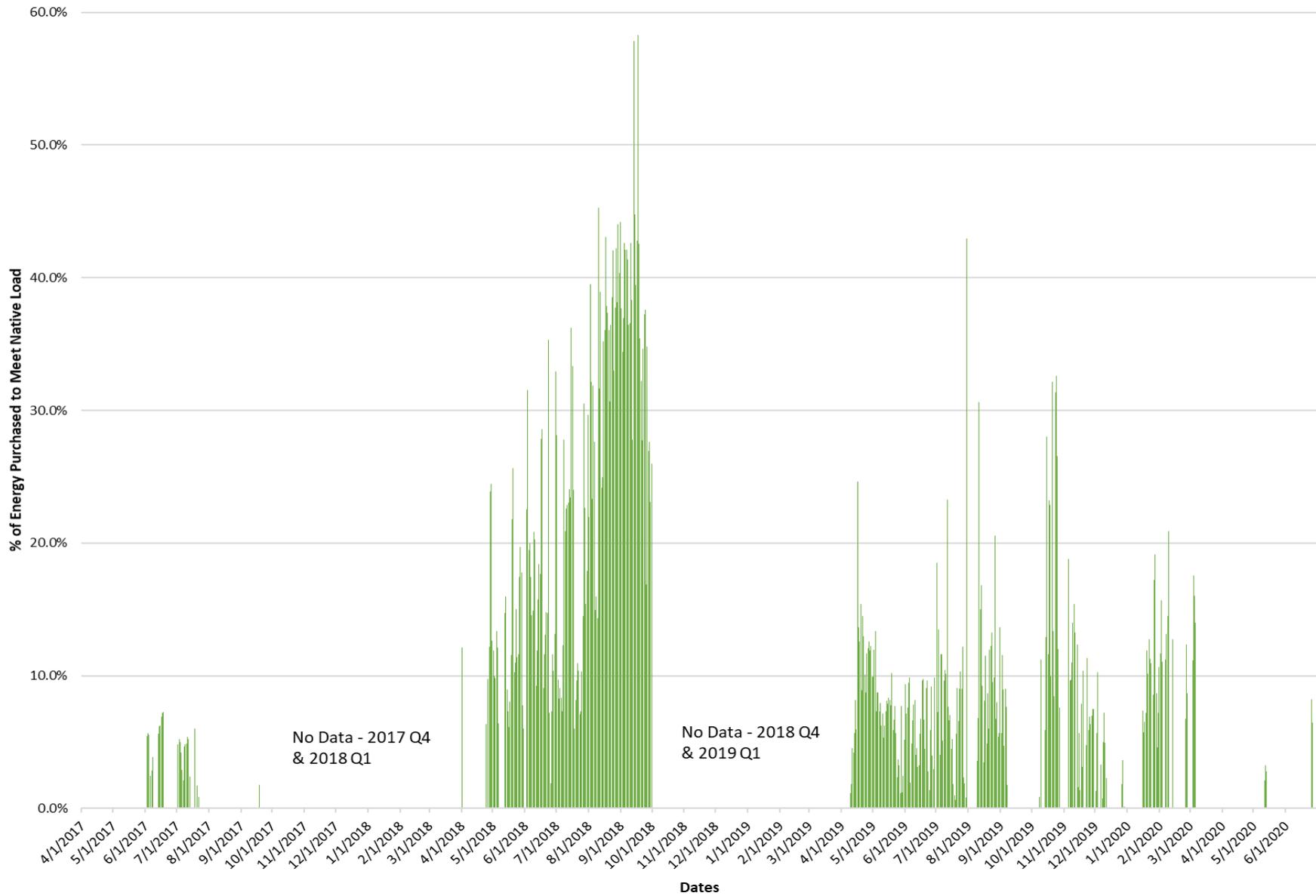
HEA - % of Energy Purchased to Meet Native Load (2017 to 2020 Q2)



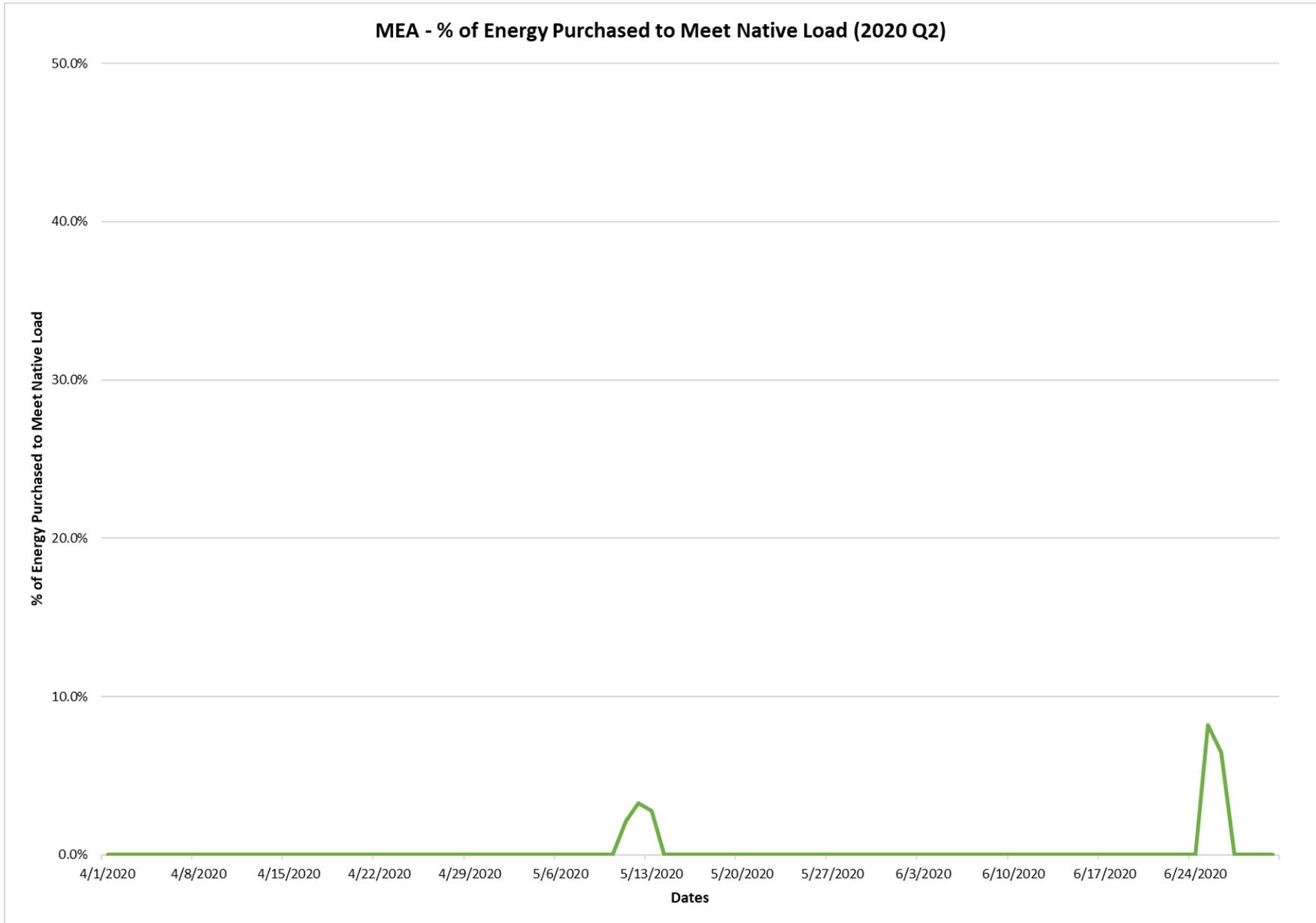
### HEA - % of Energy Purchased to Meet Native Load (2020 Q2)



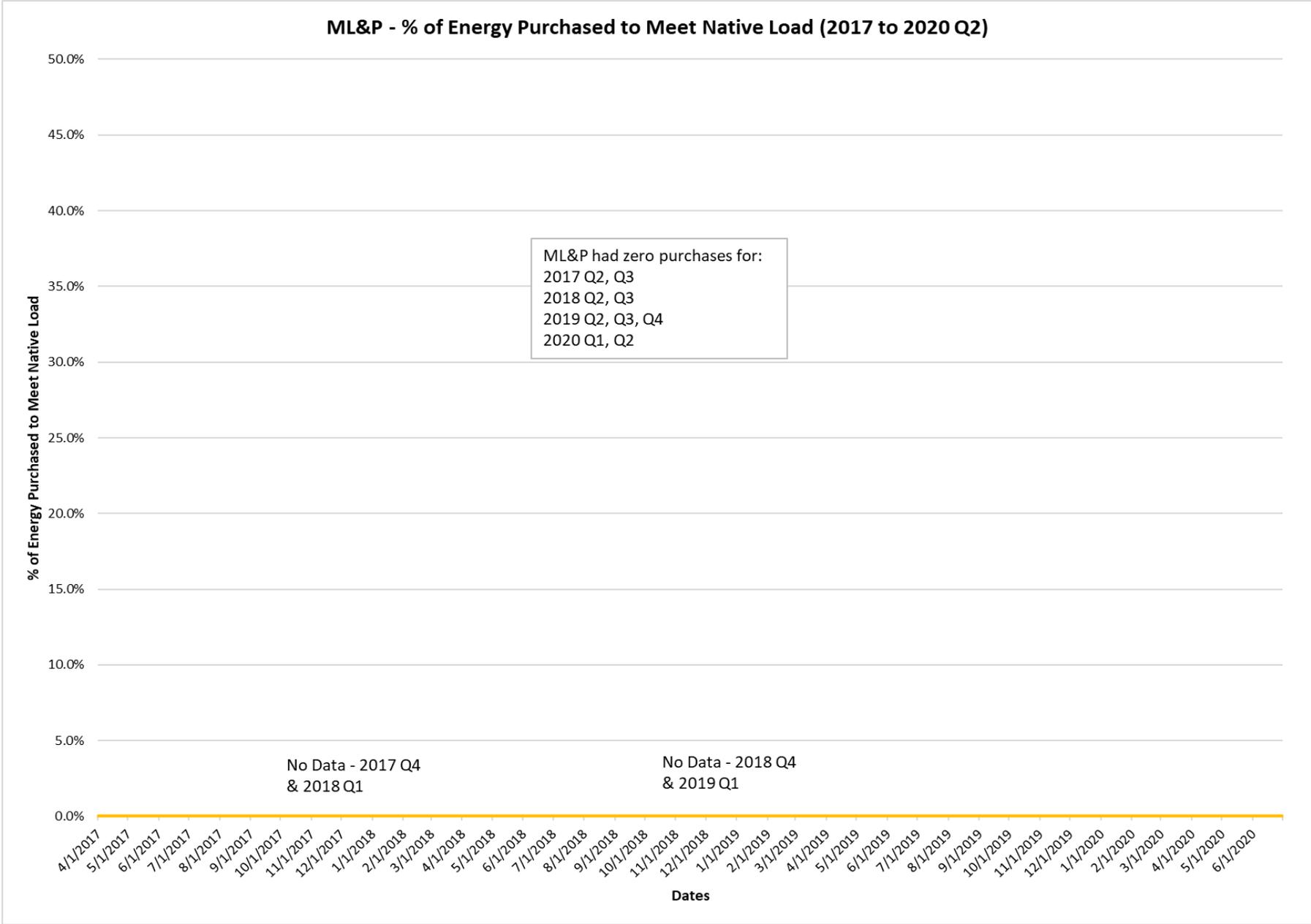
MEA - % of Energy Purchased to Meet Native Load (2017 to 2020 Q2)



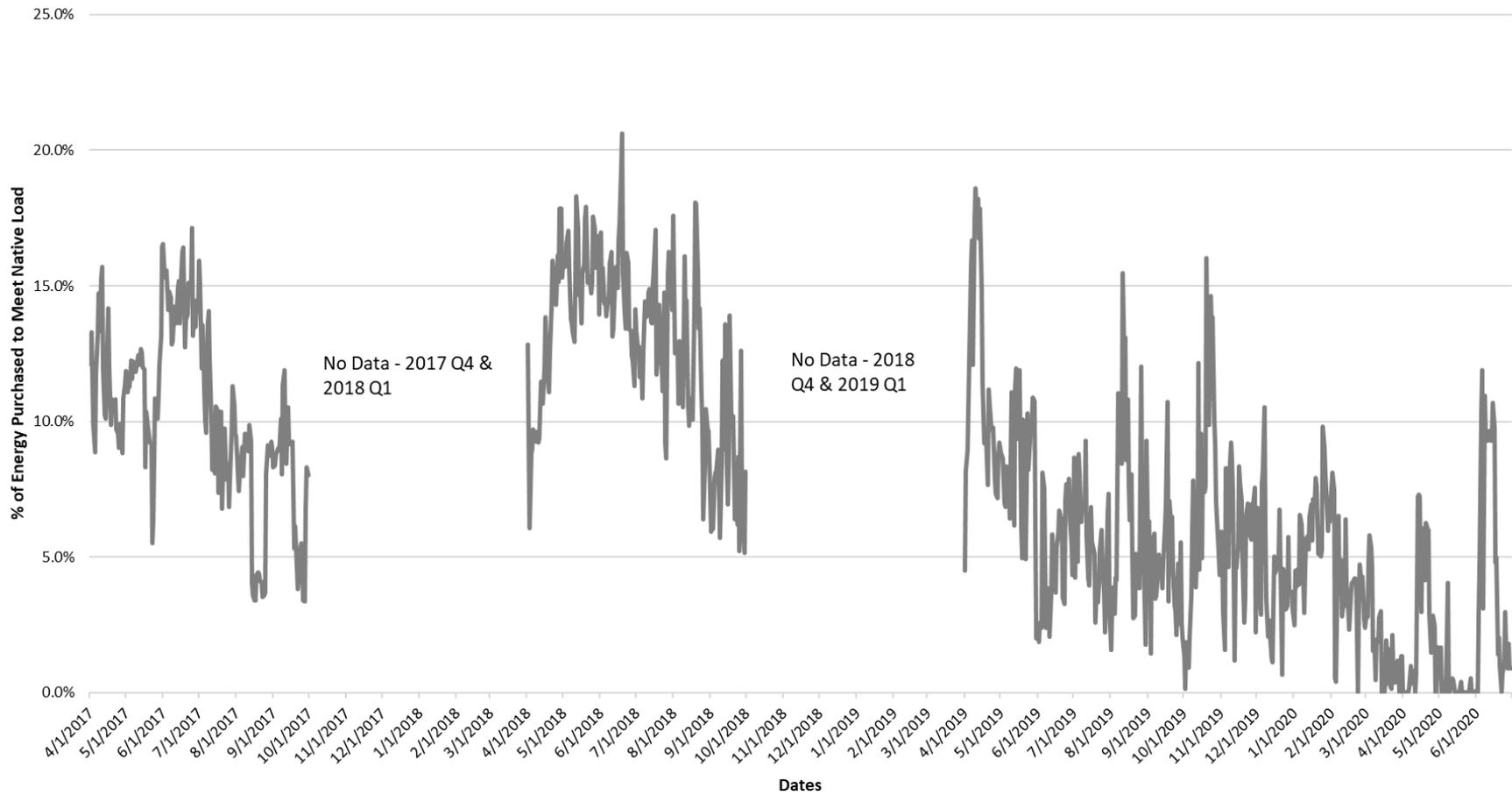
MEA - % of Energy Purchased to Meet Native Load (2020 Q2)



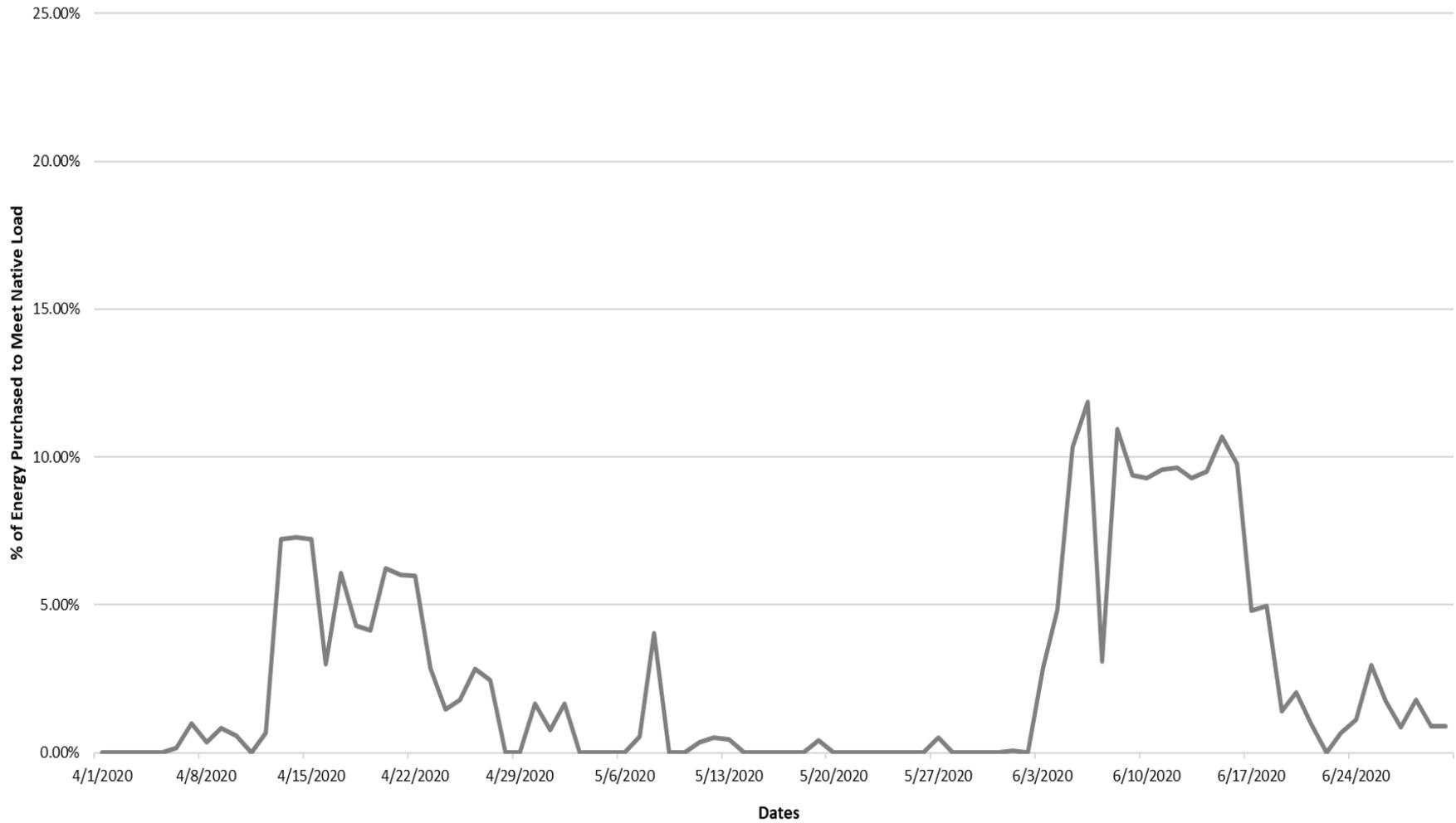
**ML&P - % of Energy Purchased to Meet Native Load (2017 to 2020 Q2)**



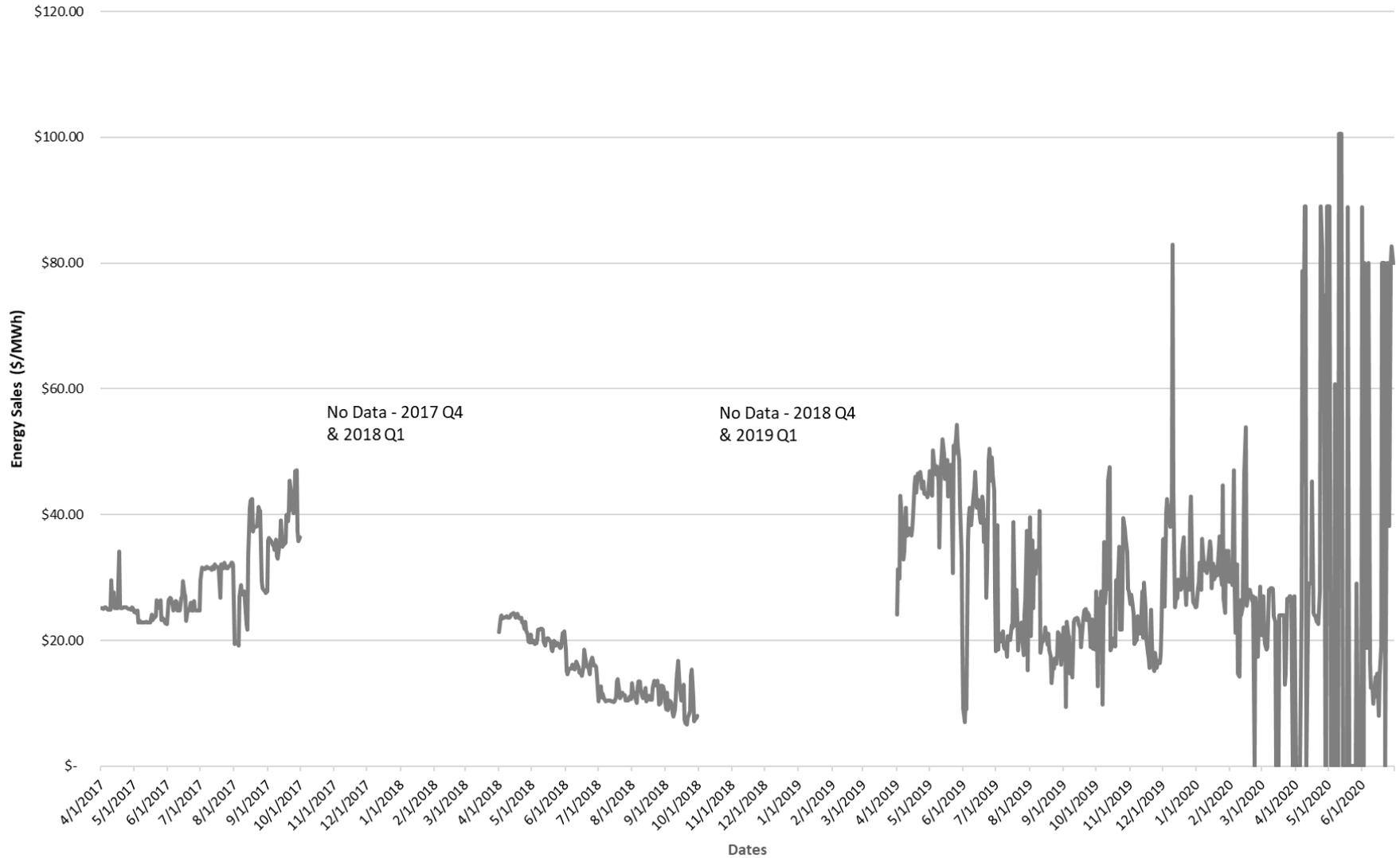
### All Railbelt Utilites % of Energy Purchased to Meet Native Load



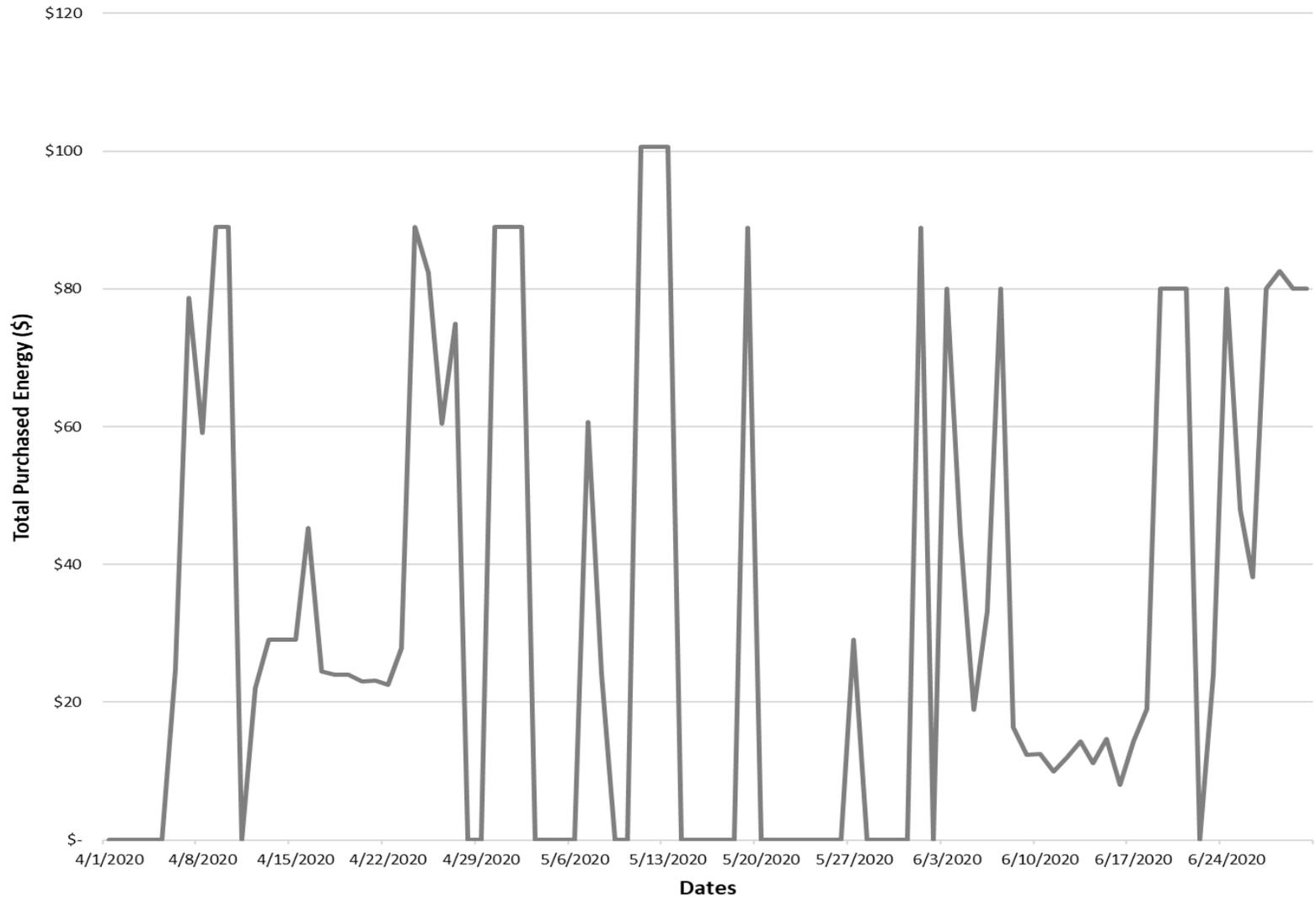
**All Railbelt Utilites - Q2 2020**  
**% of Energy Purchased to Meet Native Load**



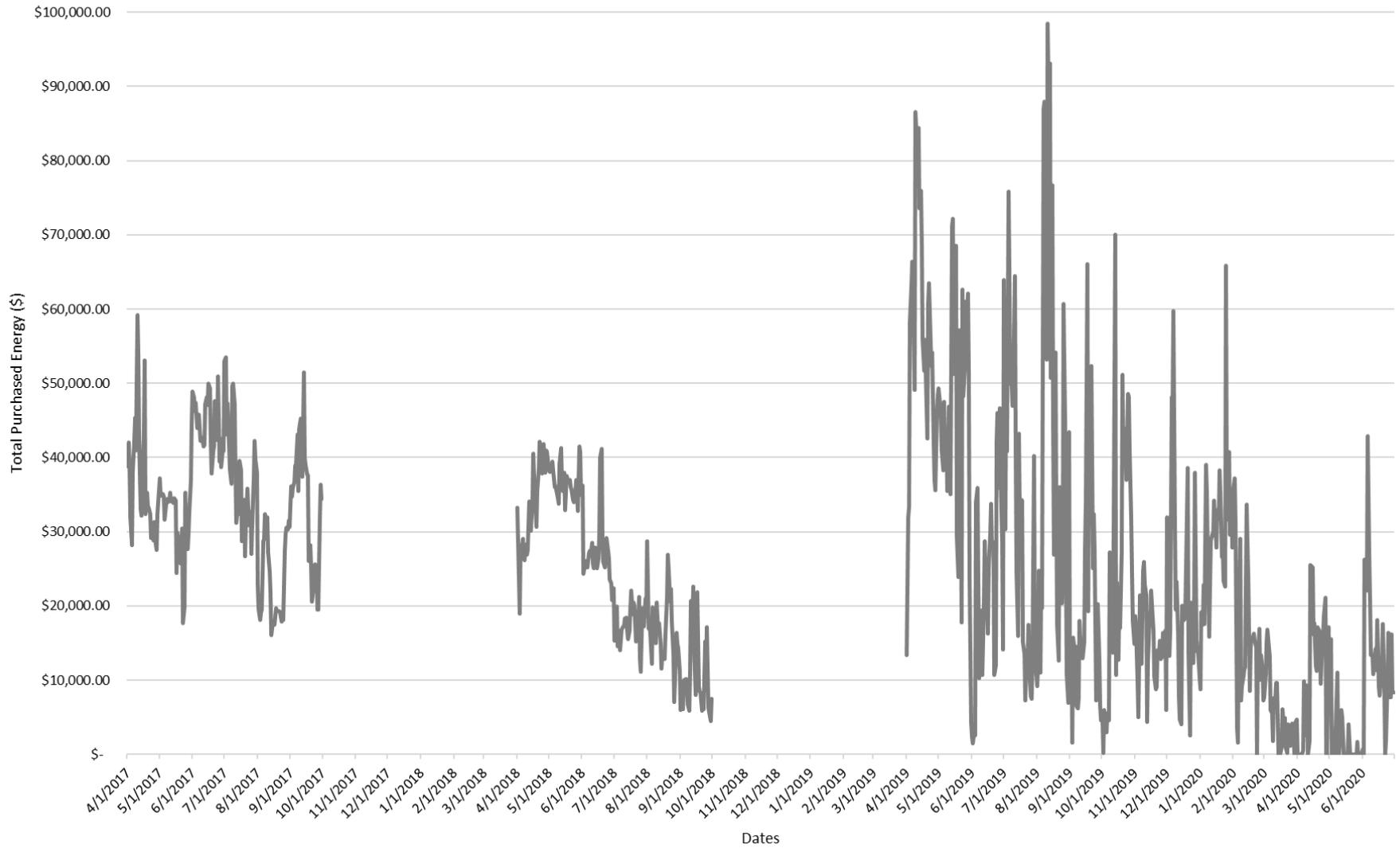
### All Railbelt Utilities \$/MWh Average Price



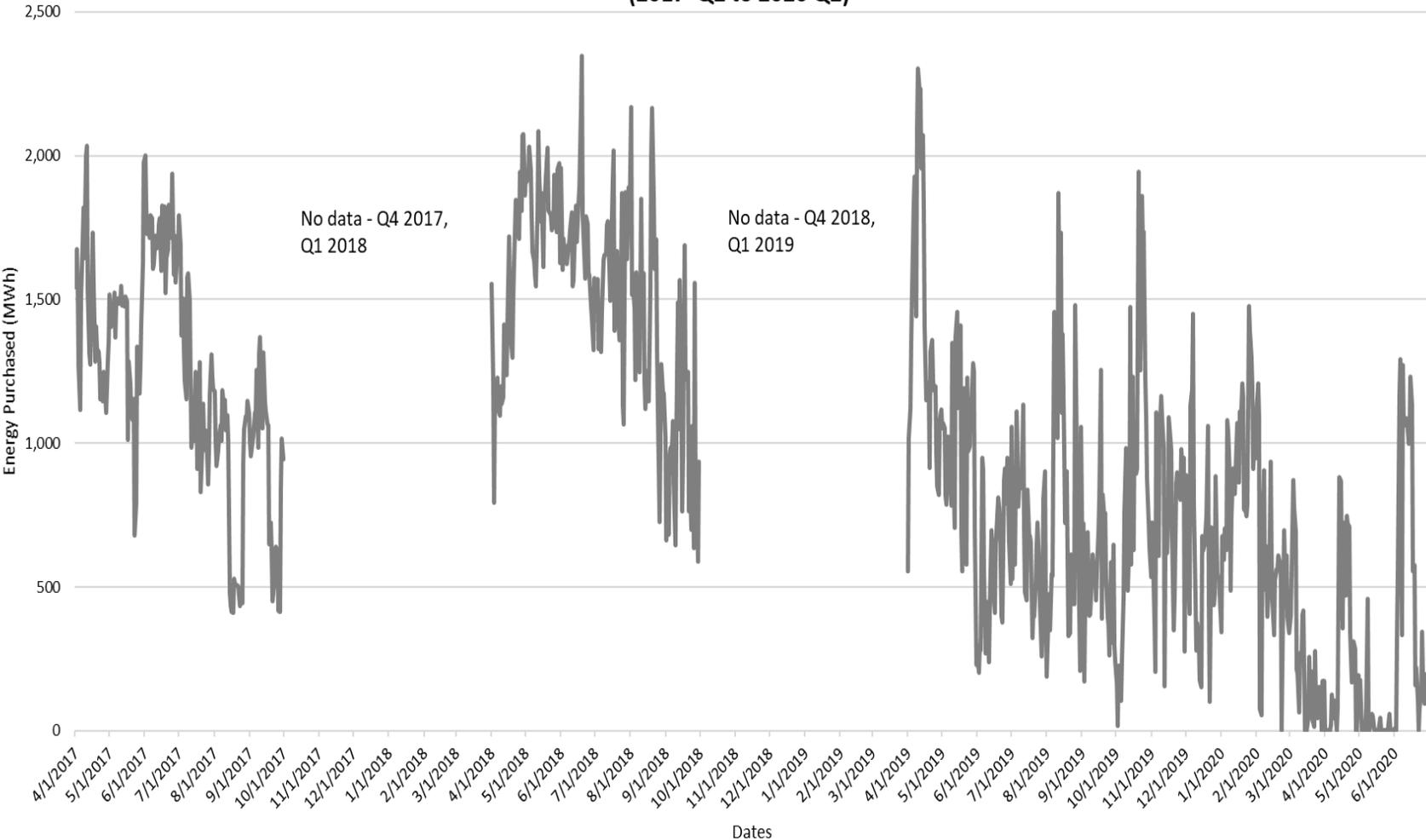
**All Railbelt Utilities- Q2 2020  
\$/MWh Average Price**



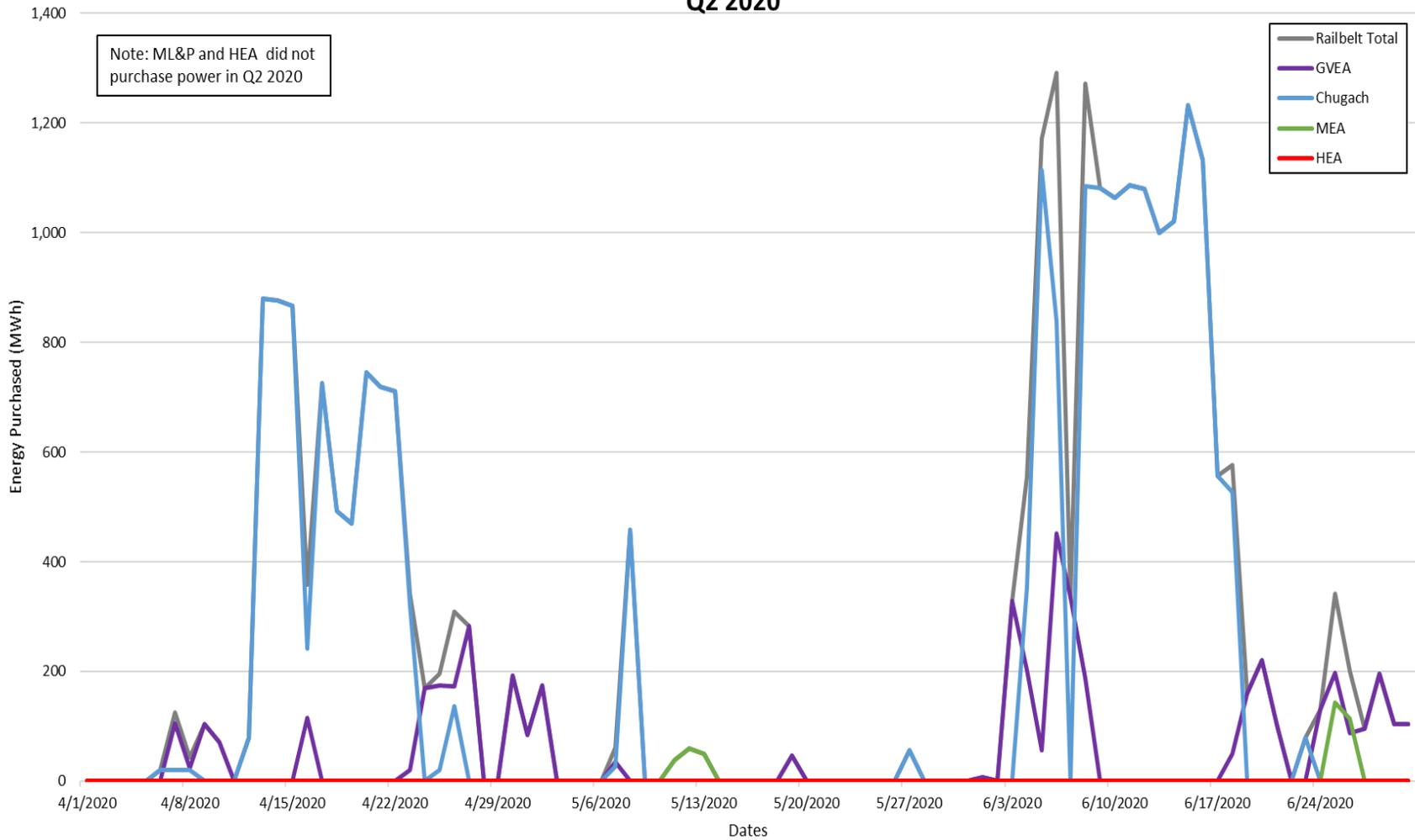
### All Railbelt Utilities Total Purchased Energy (\$)



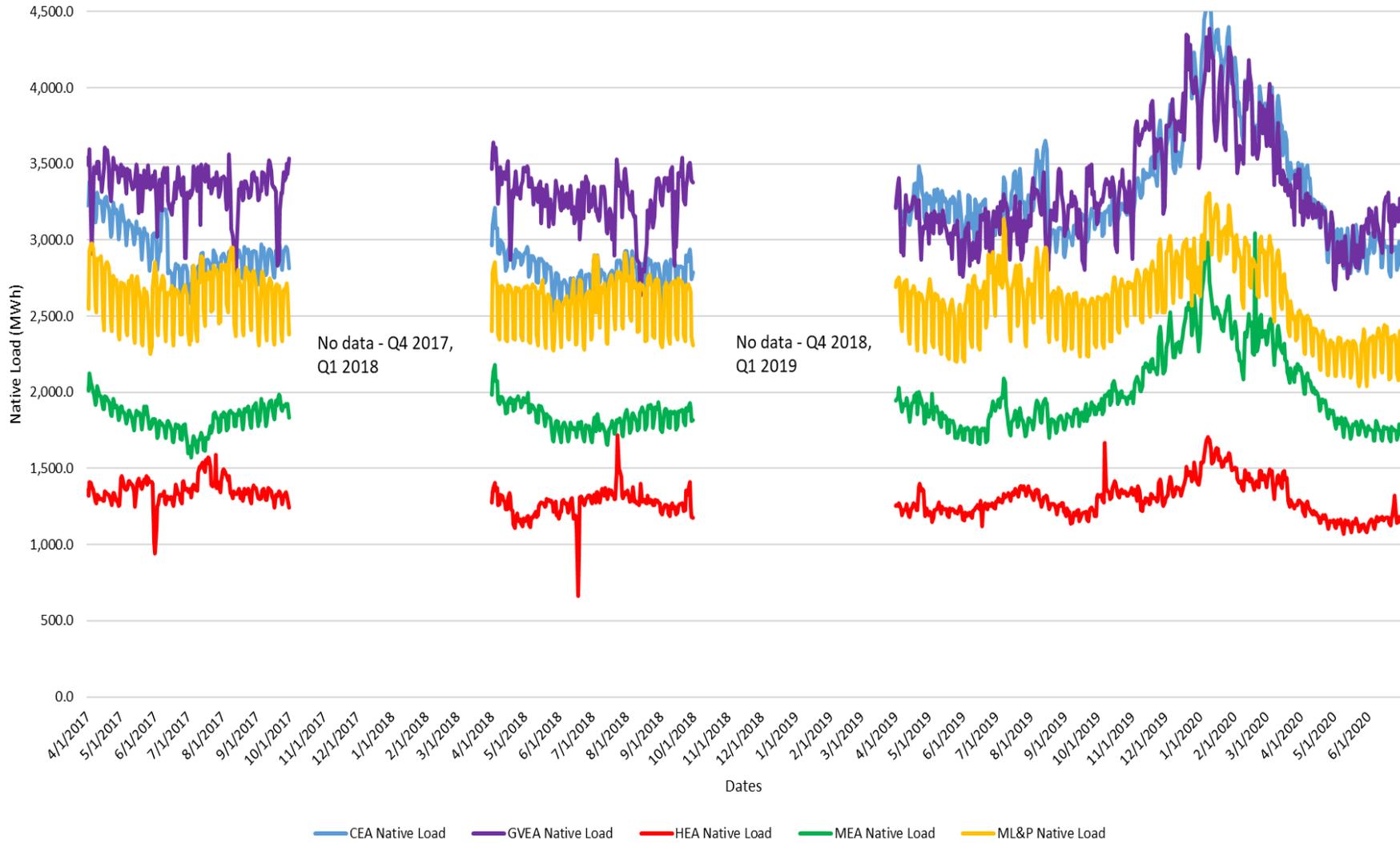
**All Railbelt Utilites  
Total Energy Purchases (MWh)  
(2017 Q2 to 2020 Q2)**



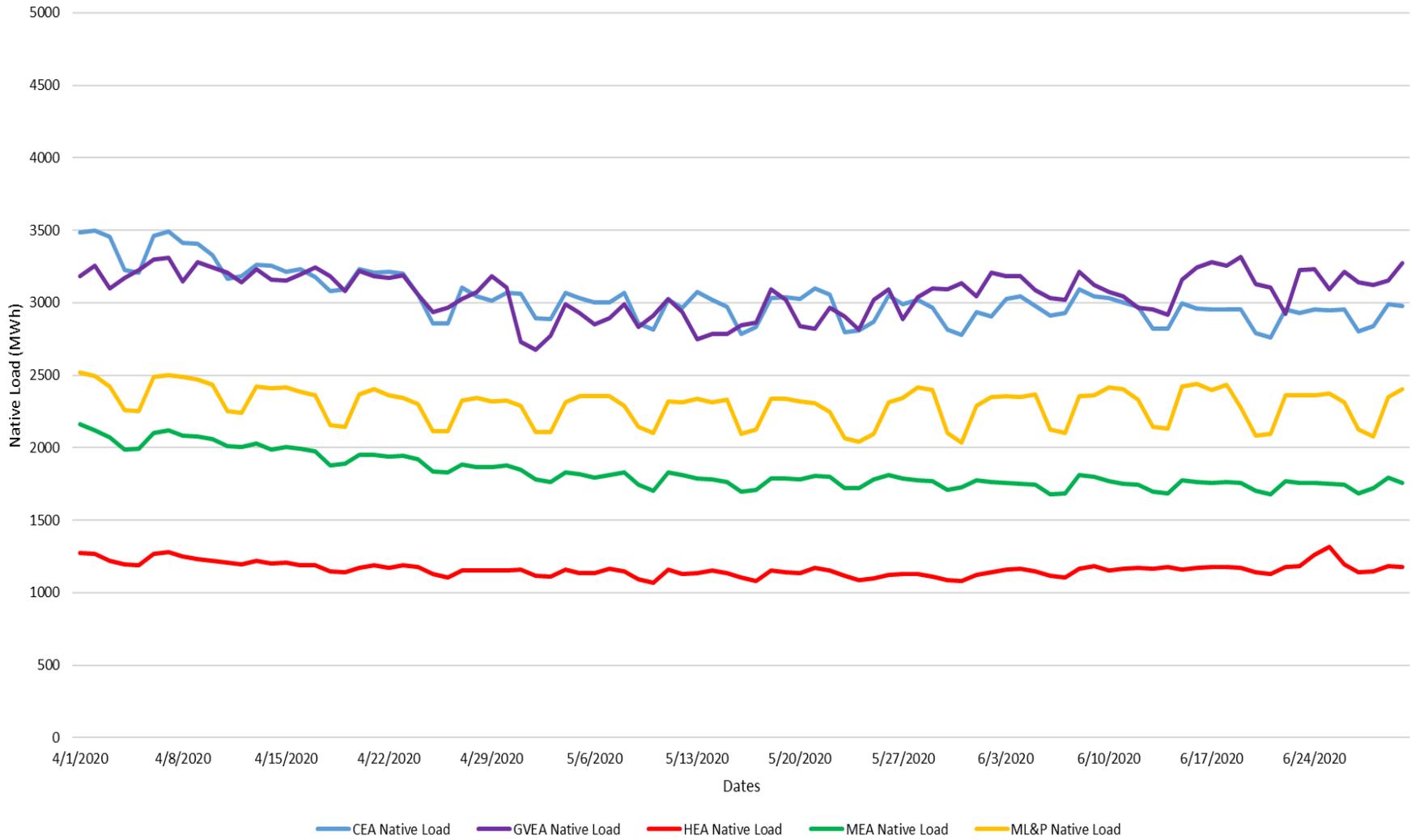
### Total Energy Purchases Comparison (MWh) Q2 2020



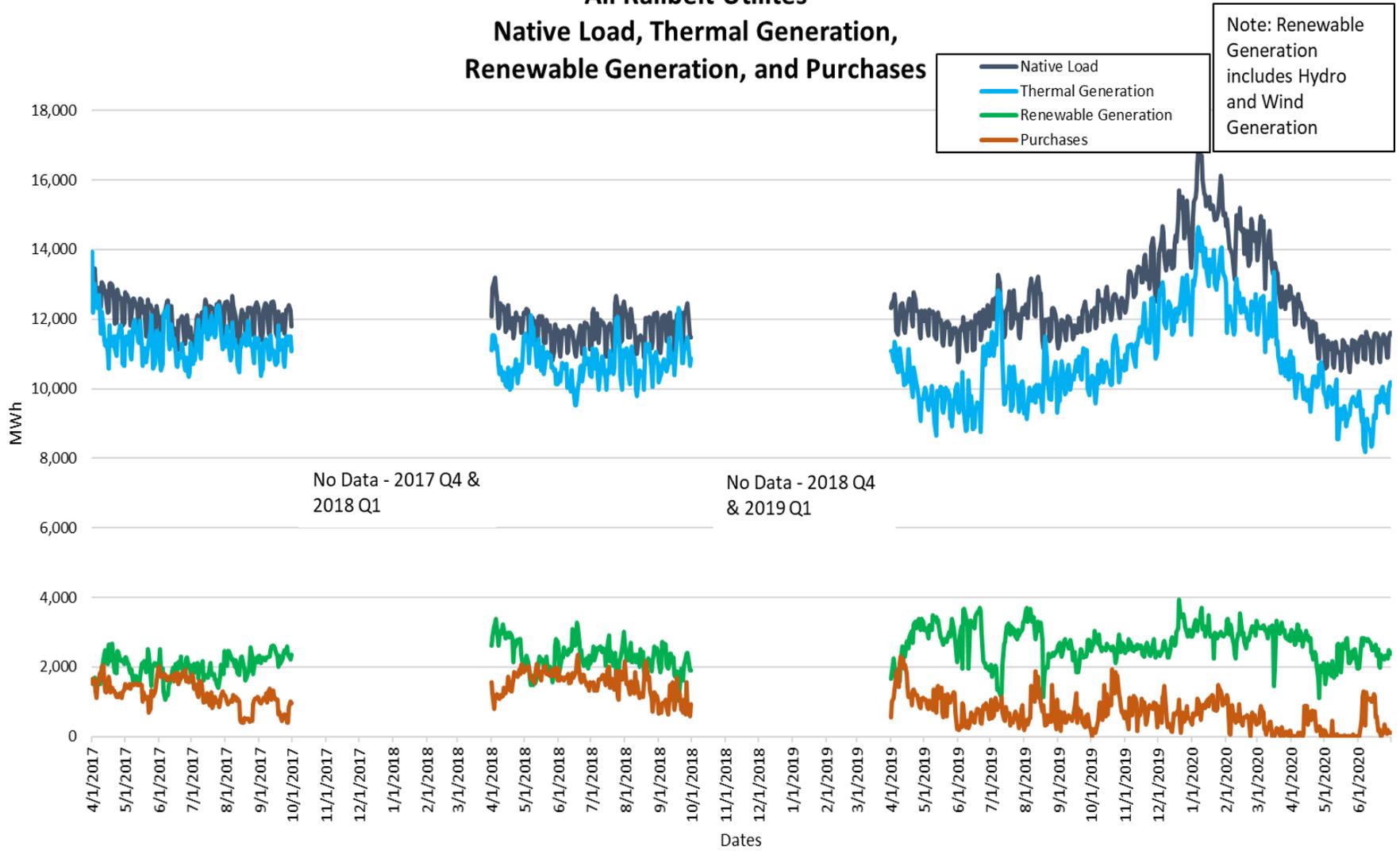
### Native Loads



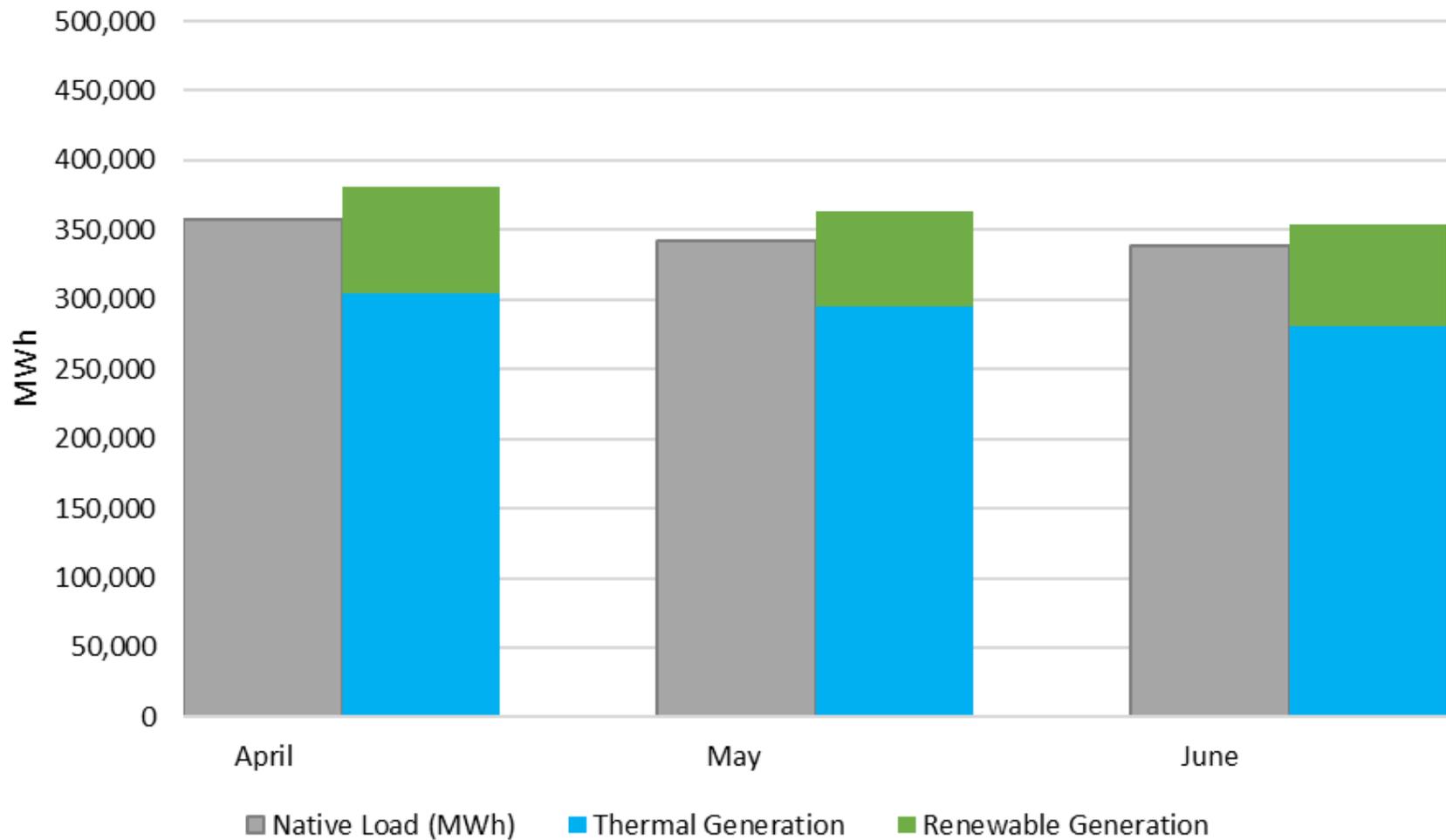
### Native Loads Q2 2020



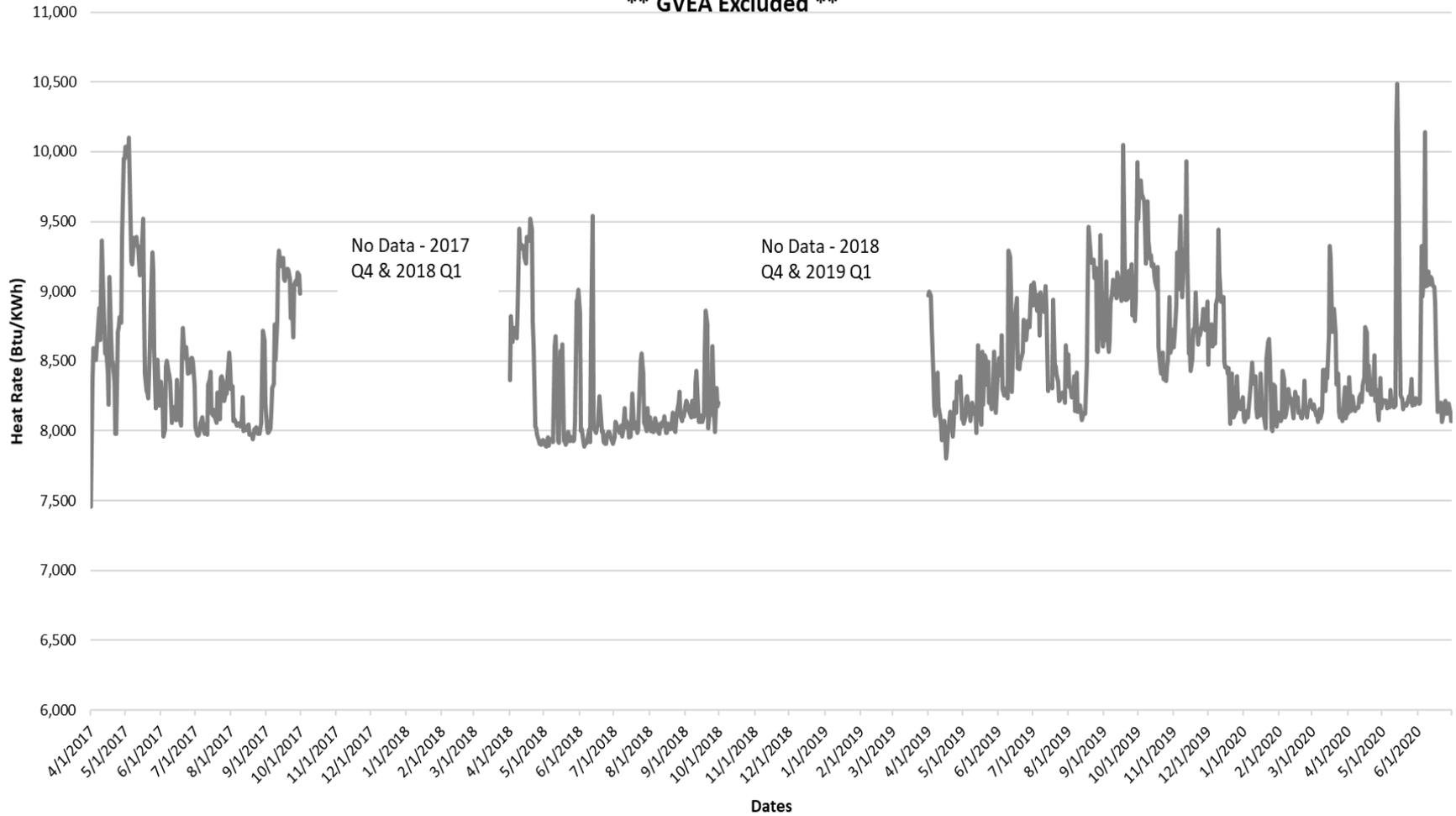
### All Railbelt Utilities Native Load, Thermal Generation, Renewable Generation, and Purchases



### All Railbelt Utilities Native Load vs. Generation Q2 2020



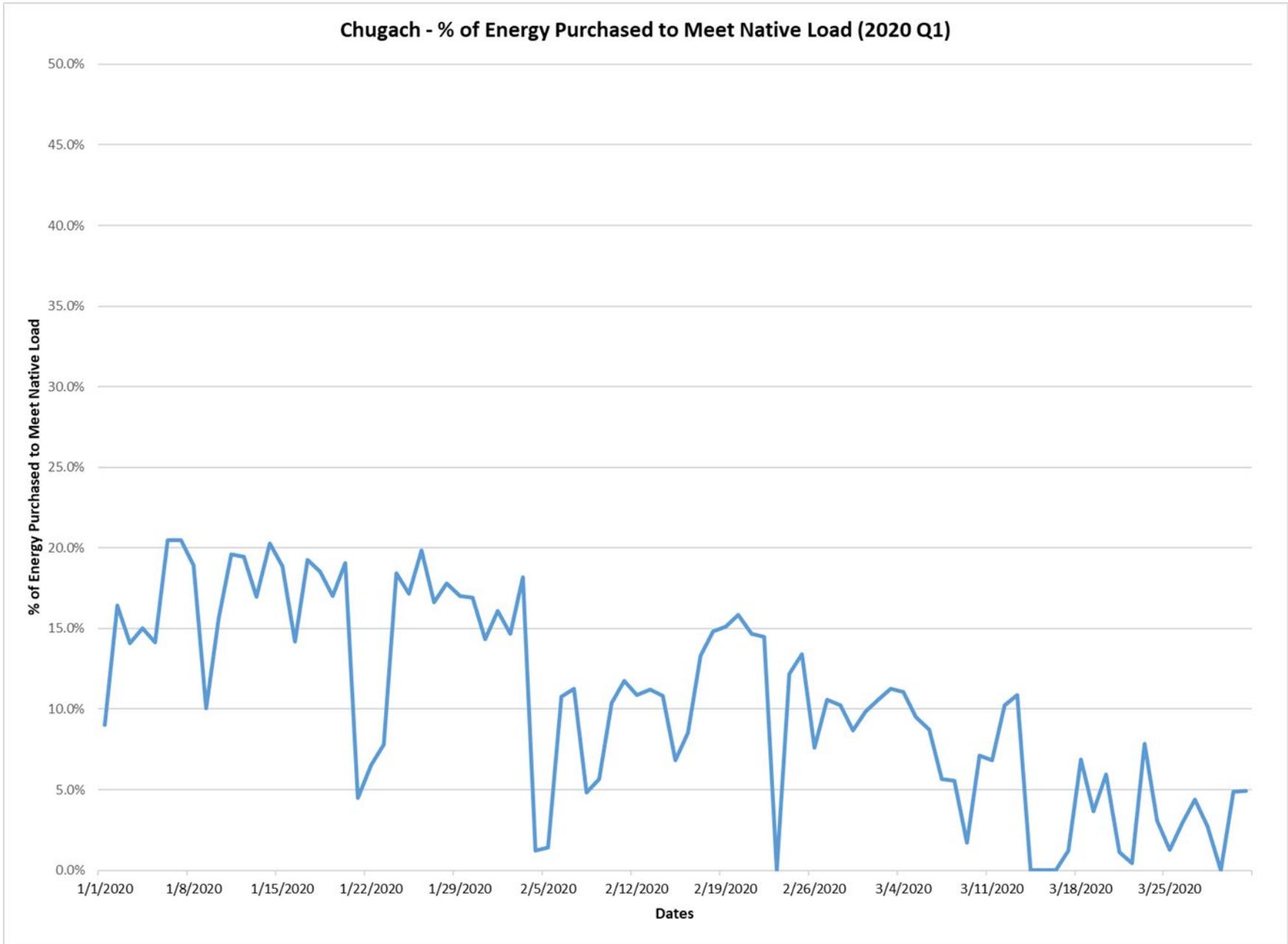
**All Railbelt Utilites**  
**Weighted Average Heat Rate (Btu/KWh)**  
**\*\* GVEA Excluded \*\***



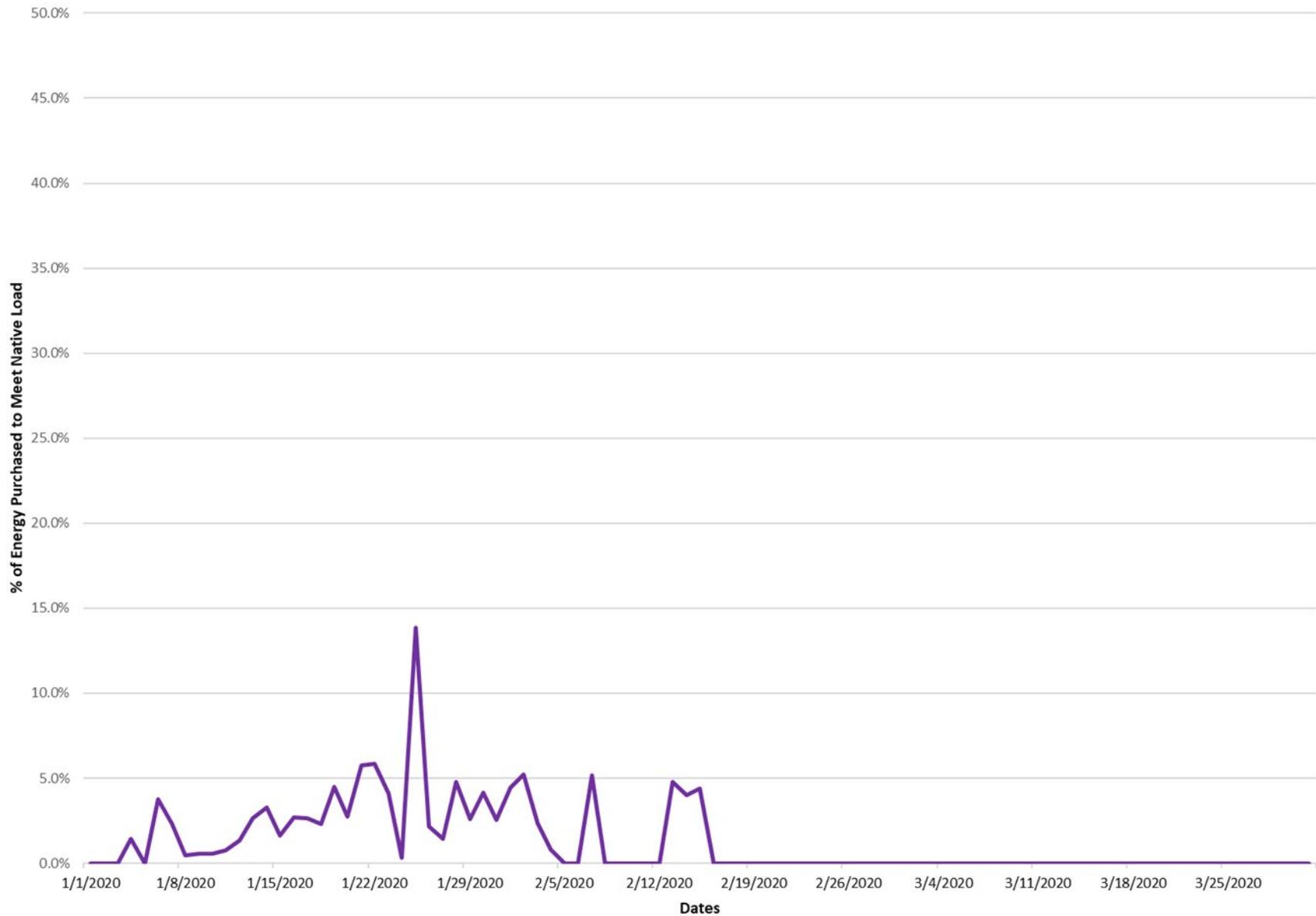
Railbelt Wide – Spin Transactions		
	Number of spin transactions	Total Spin (MW)
April 2017	27	332
May 2017	0	0
June 2017	4	40
July 2017	62	3,240
August 2017	39	3,458
September 2017	50	3,288
April 2018	1	36
May 2018	2	93
June 2018	2	39
July 2018	11	519
August 2018	1	131
September 2018	0	0
April 2019	6	93
May 2019	30	1,151
June 2019	20	824
July 2019	23	703
August 2019	31	726
September 2019	45	819
October 2019	30	845
November 2019	36	952
December 2019	36	766
January 2020	19	425
February 2020	32	765.5
March 2020	21	498
April 2020	15	355
May 2020	10	354
June 2020	0	0

# Appendix A

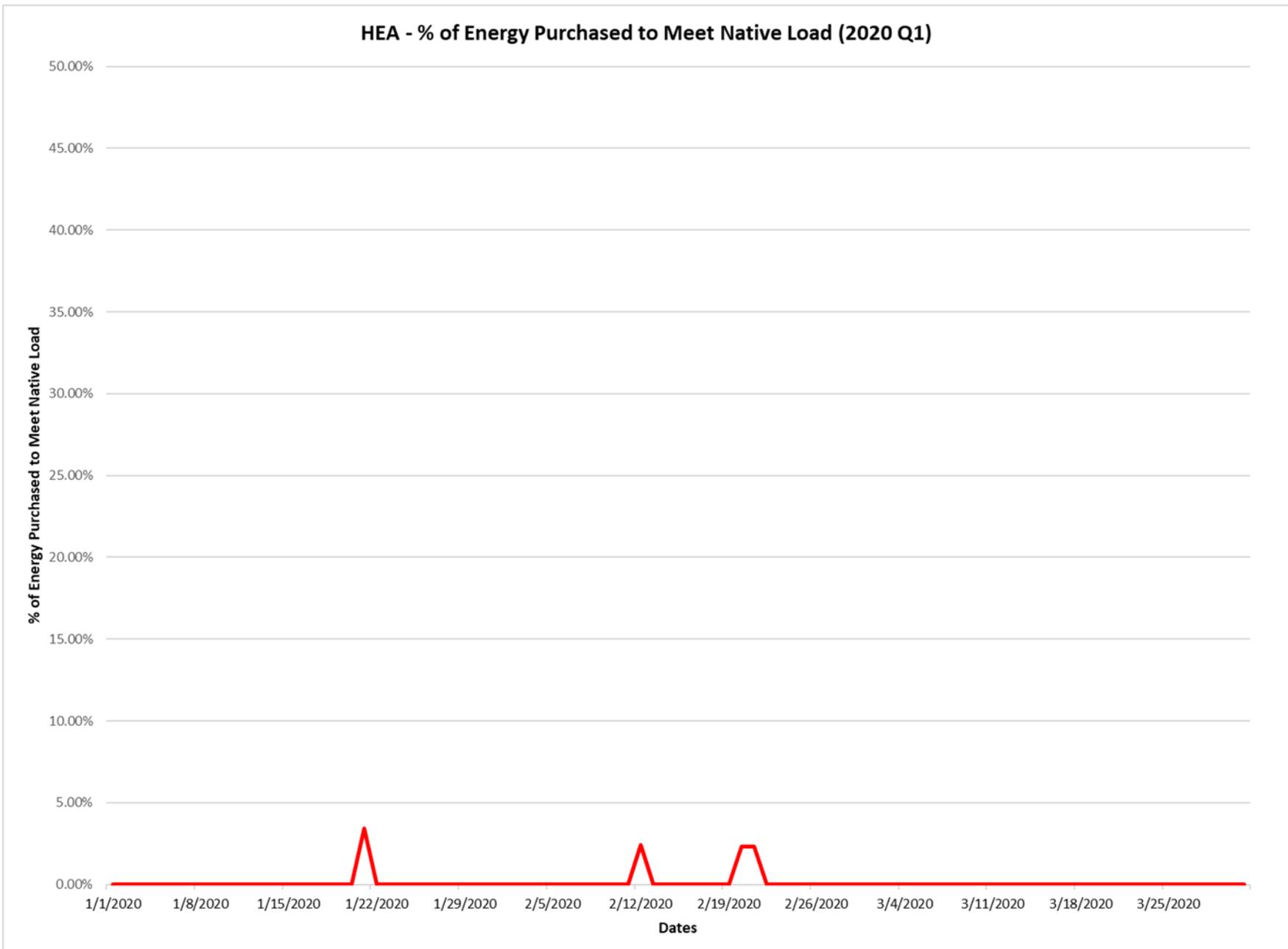
## Previously Published Data

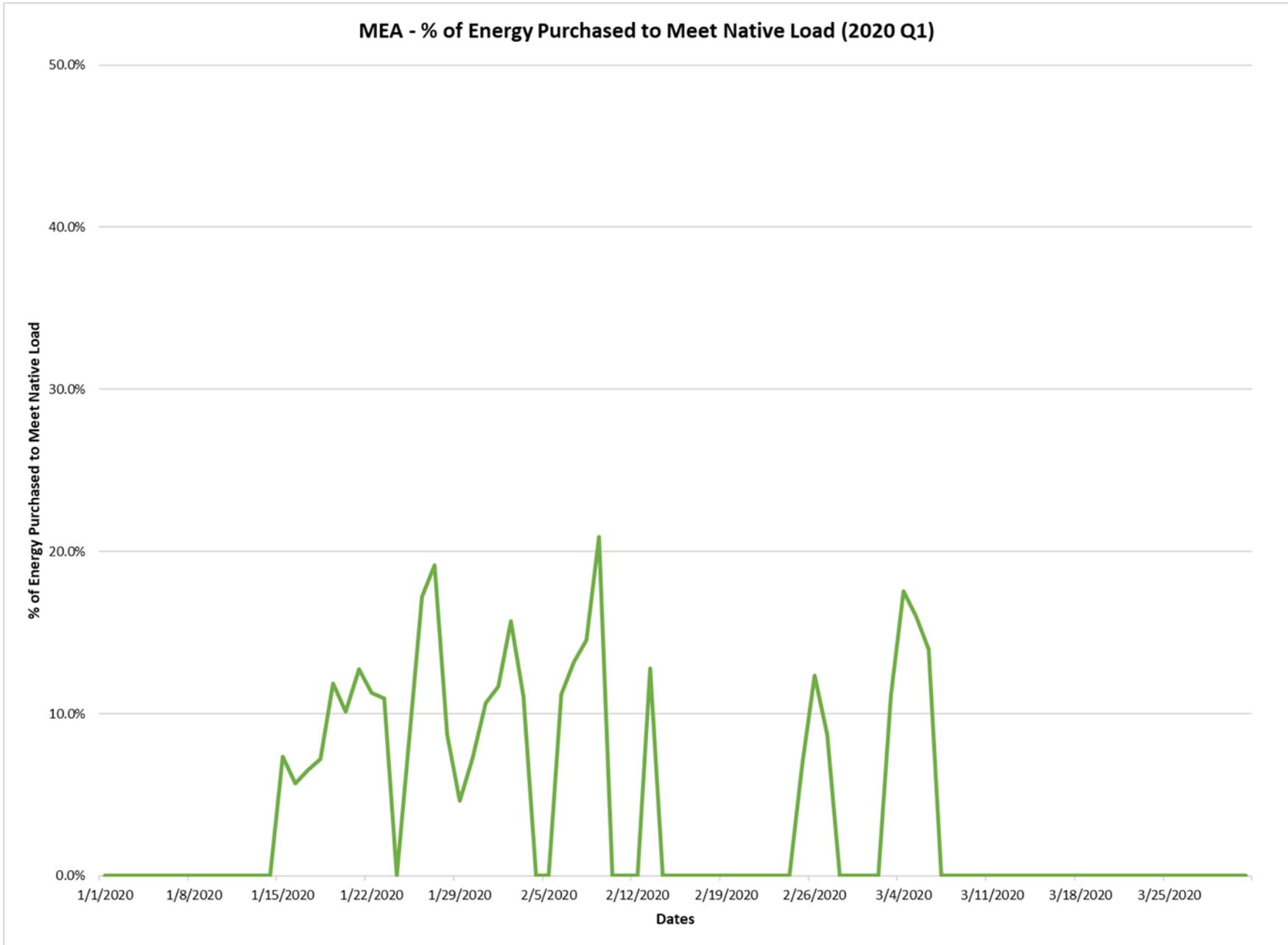


GVEA - % of Energy Purchased to Meet Native Load (2020 Q1)

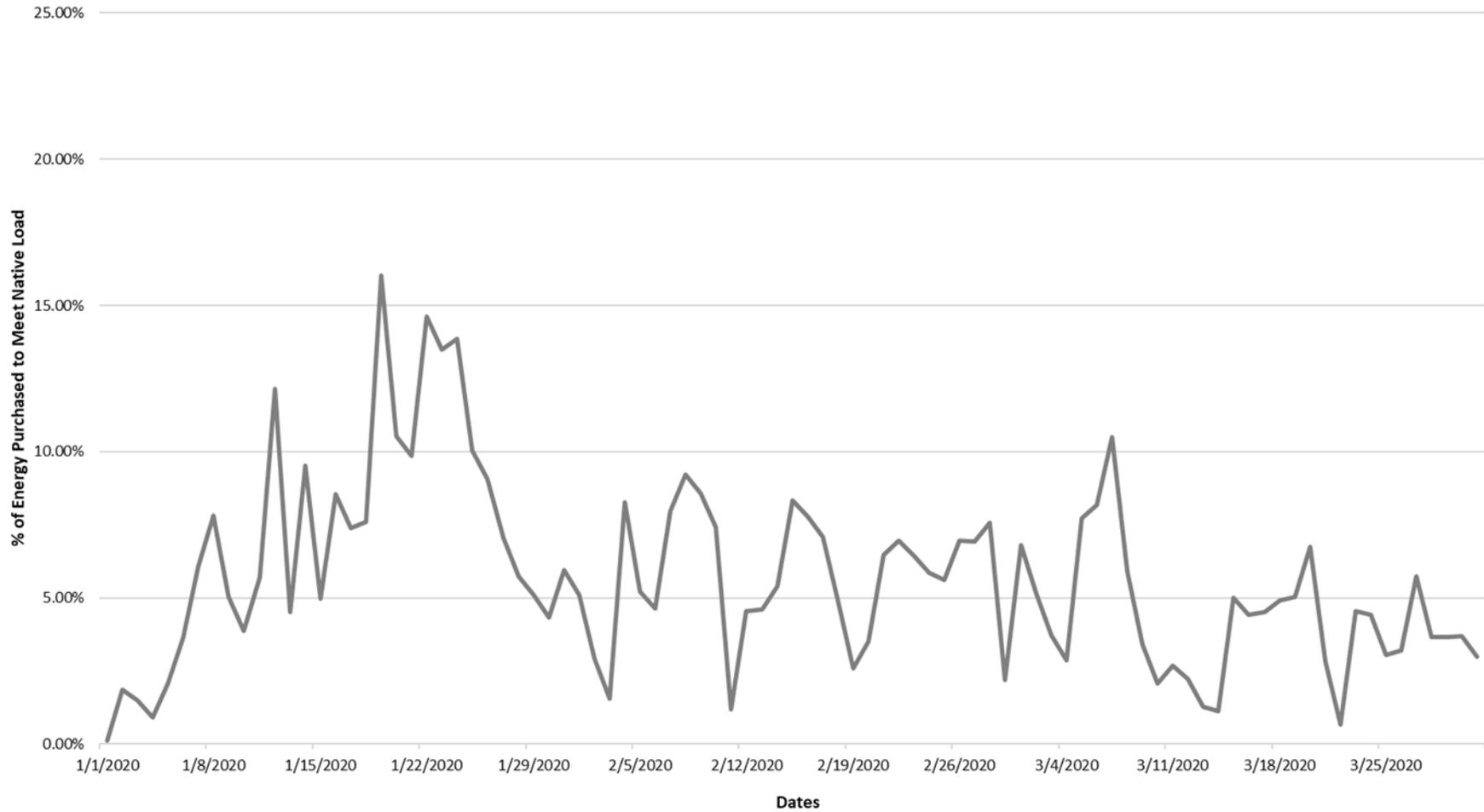


HEA - % of Energy Purchased to Meet Native Load (2020 Q1)

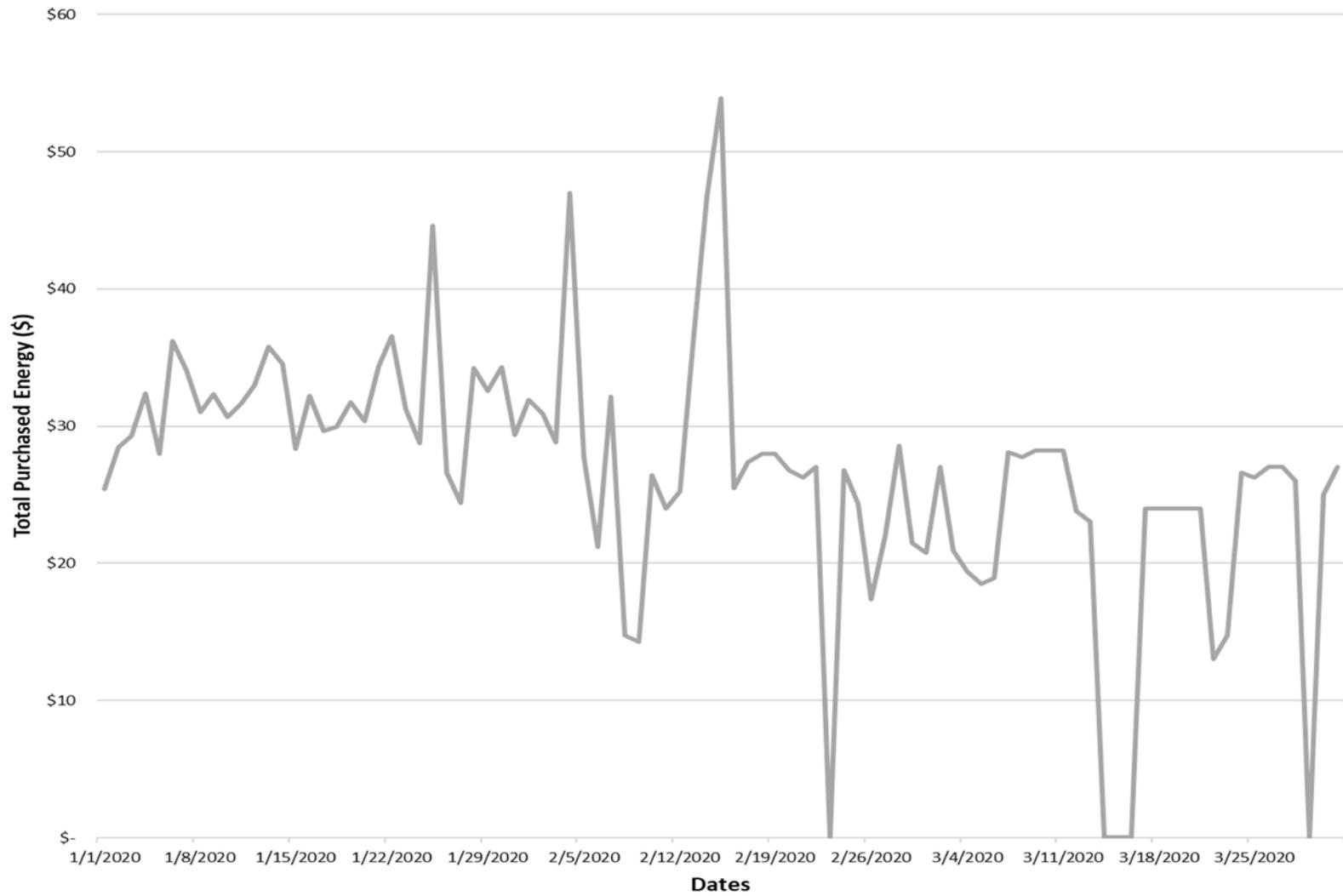




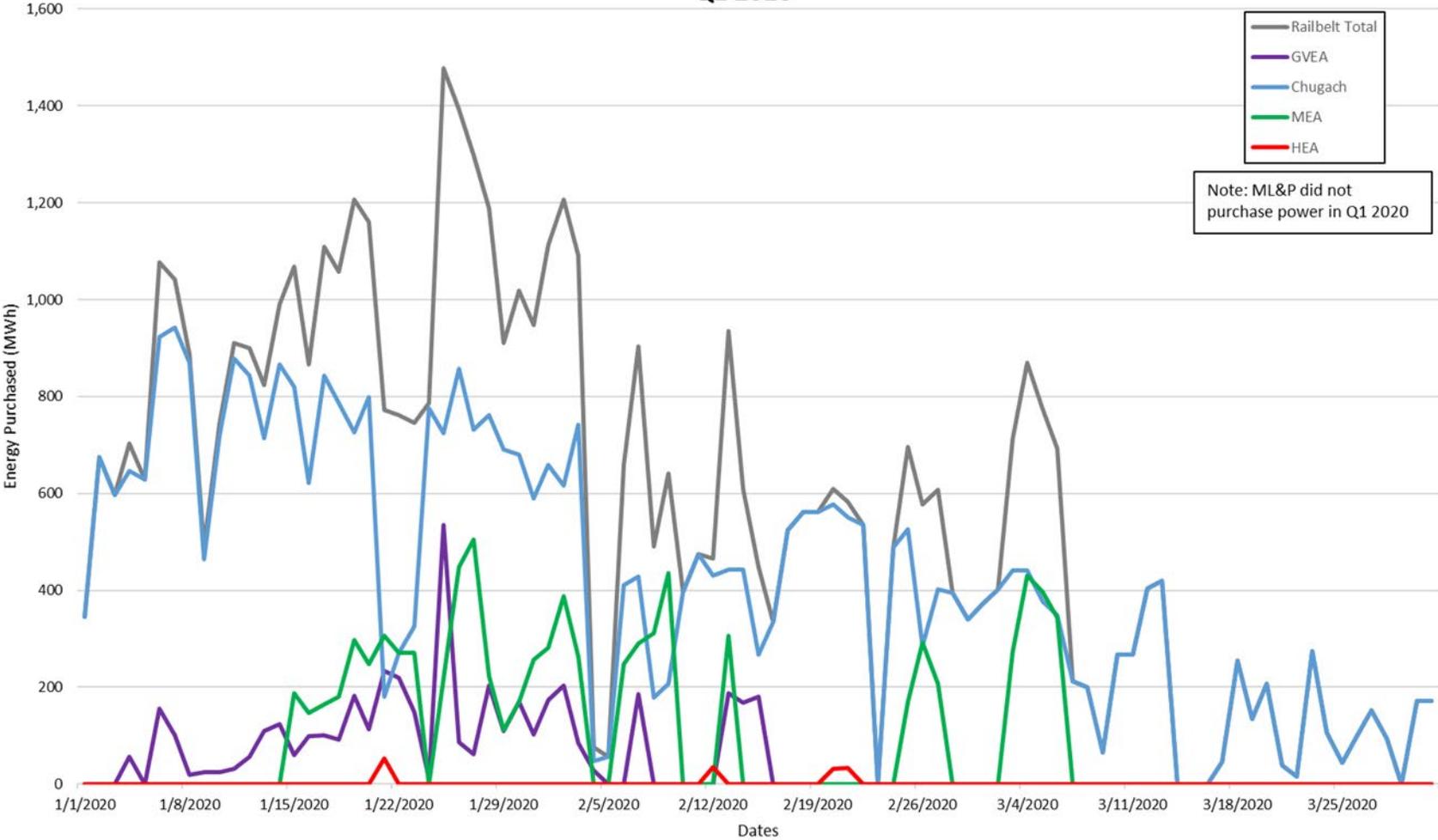
**All Railbelt Utilites - Q1 2020**  
**% of Energy Purchased to Meet Native Load**

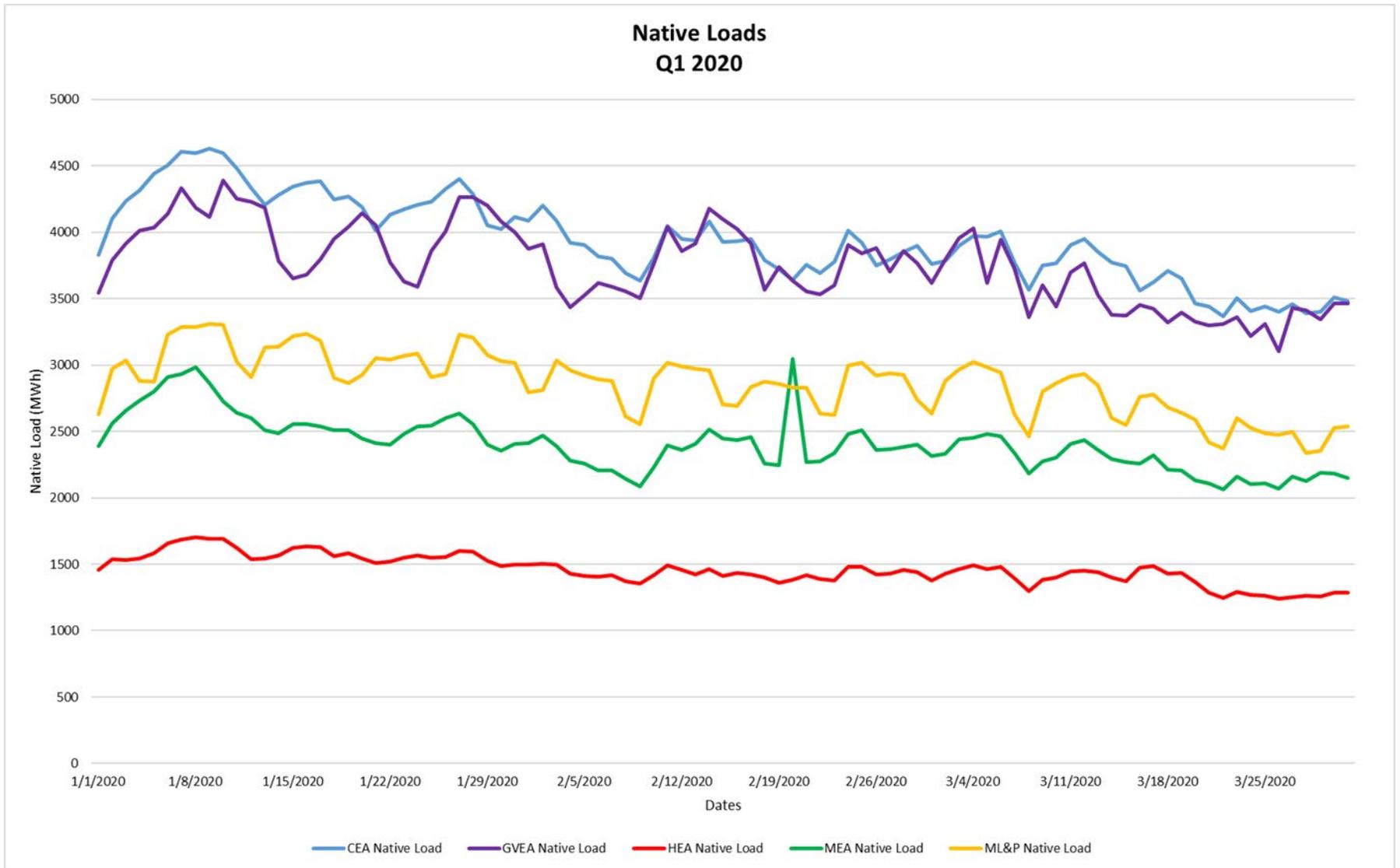


**All Railbelt Utilities- Q1 2020  
\$/MWh Average Price**

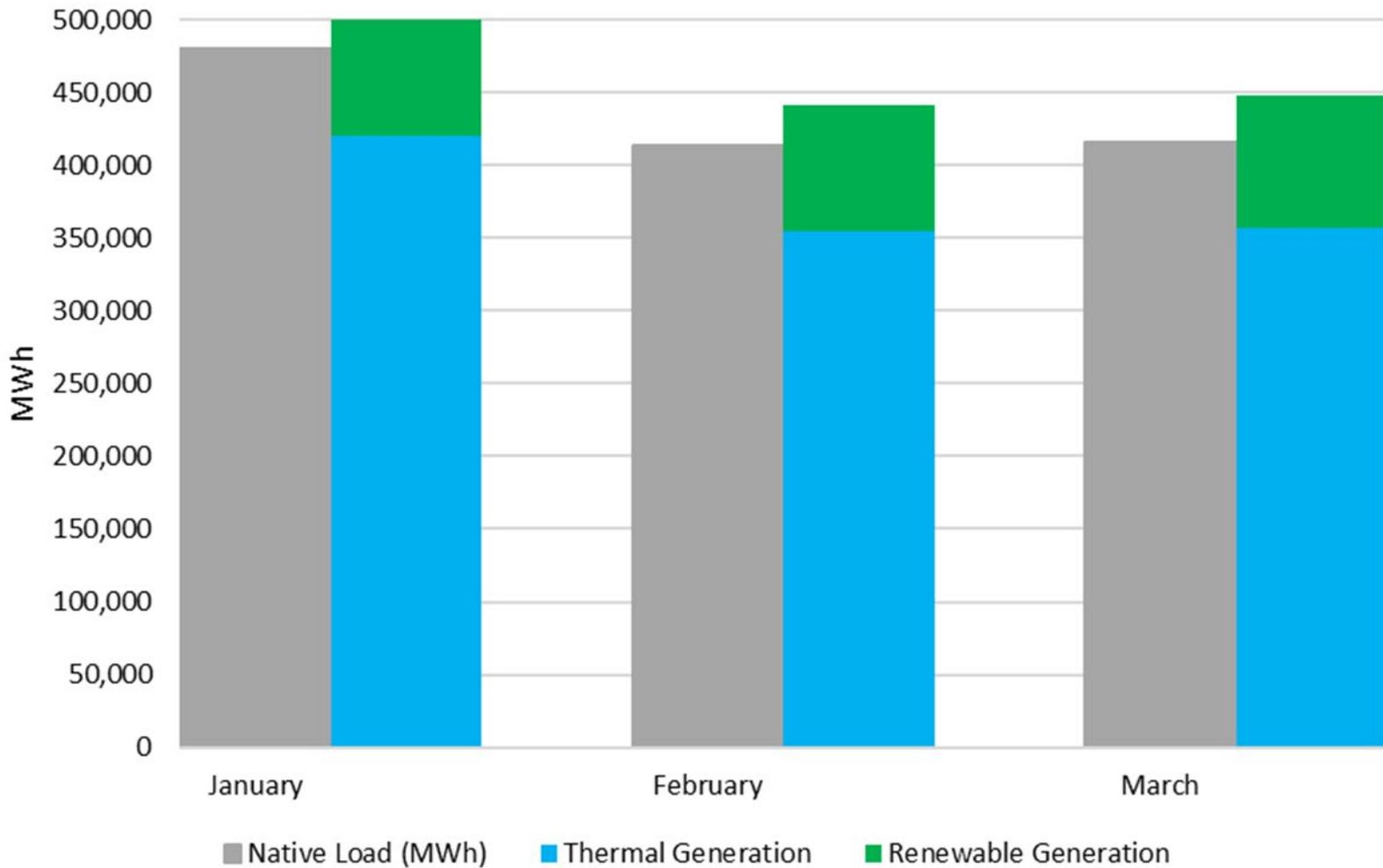


**Total Energy Purchases Comparison  
(MWh)  
Q1 2020**

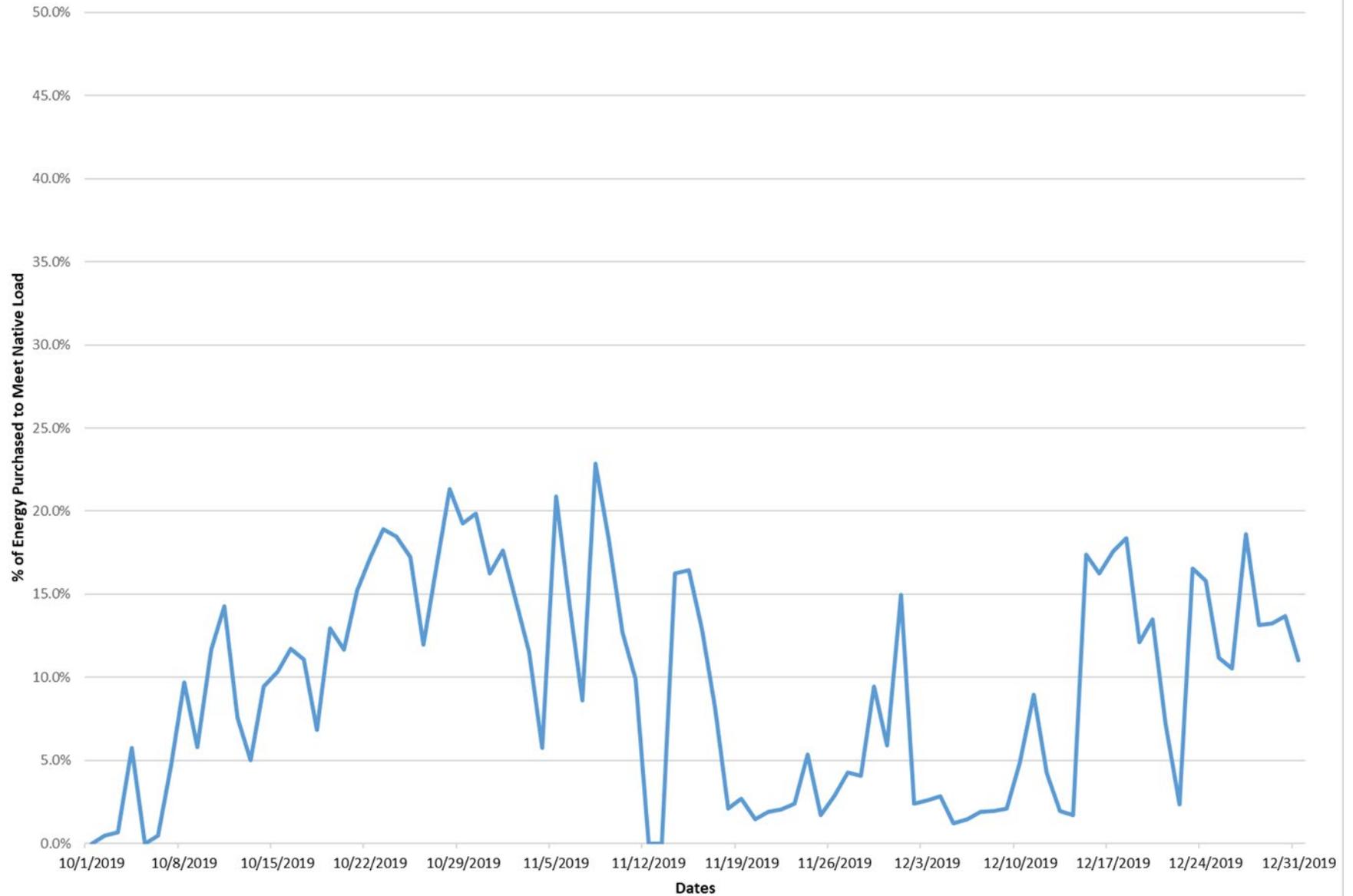


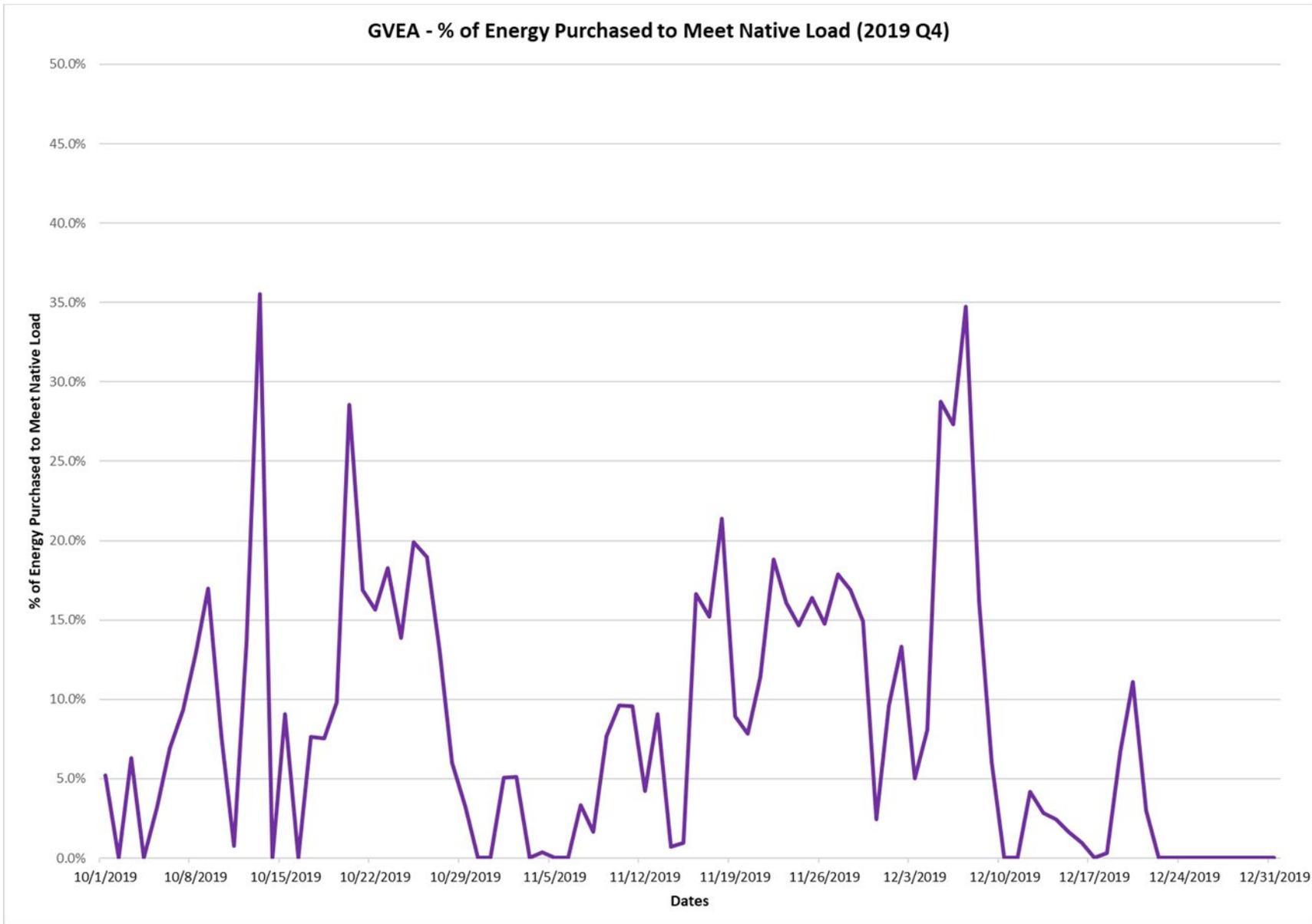


### All Railbelt Utilities Native Load vs. Generation Q1 2020



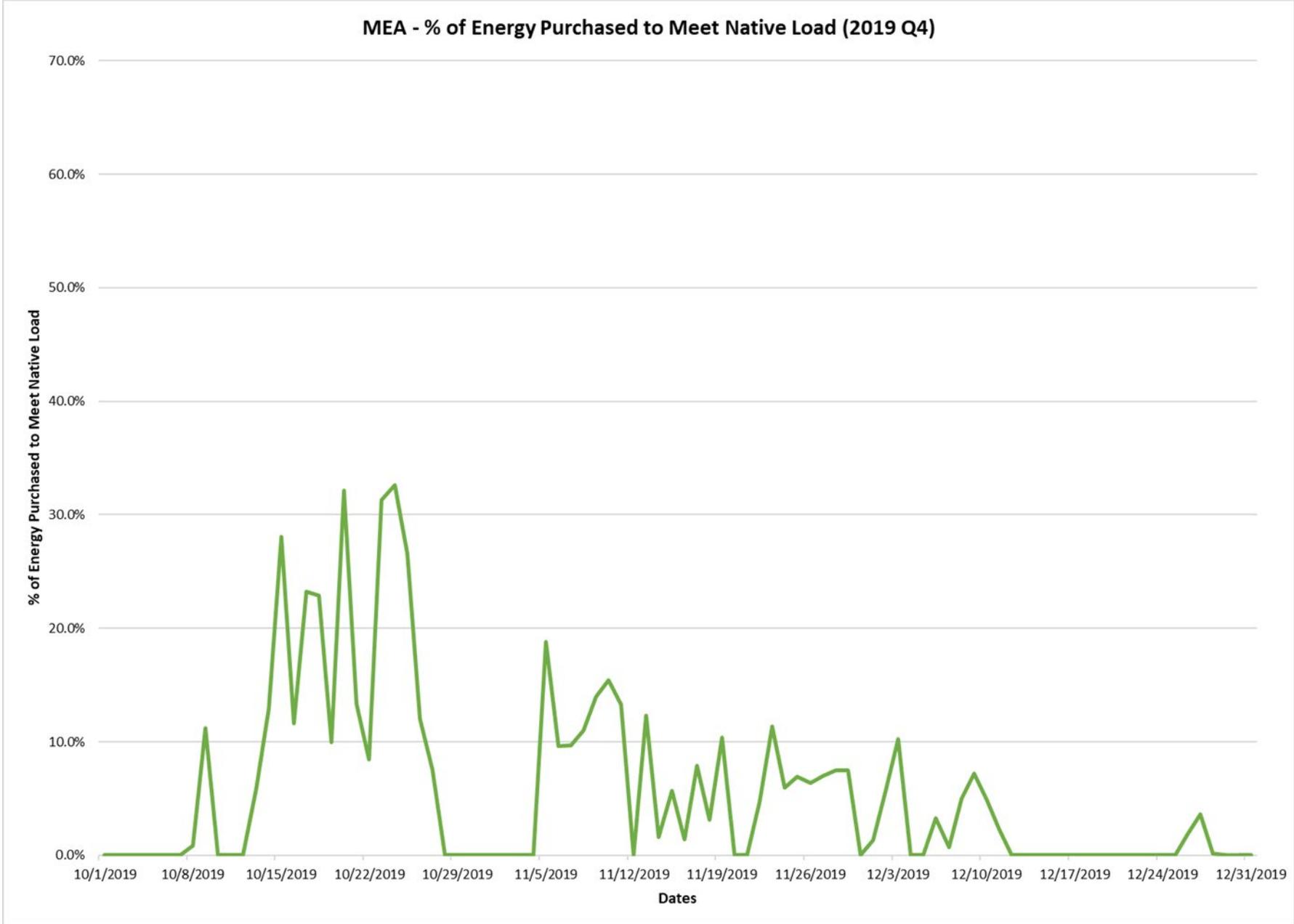
Chugach - % of Energy Purchased to Meet Native Load (2019 Q4)



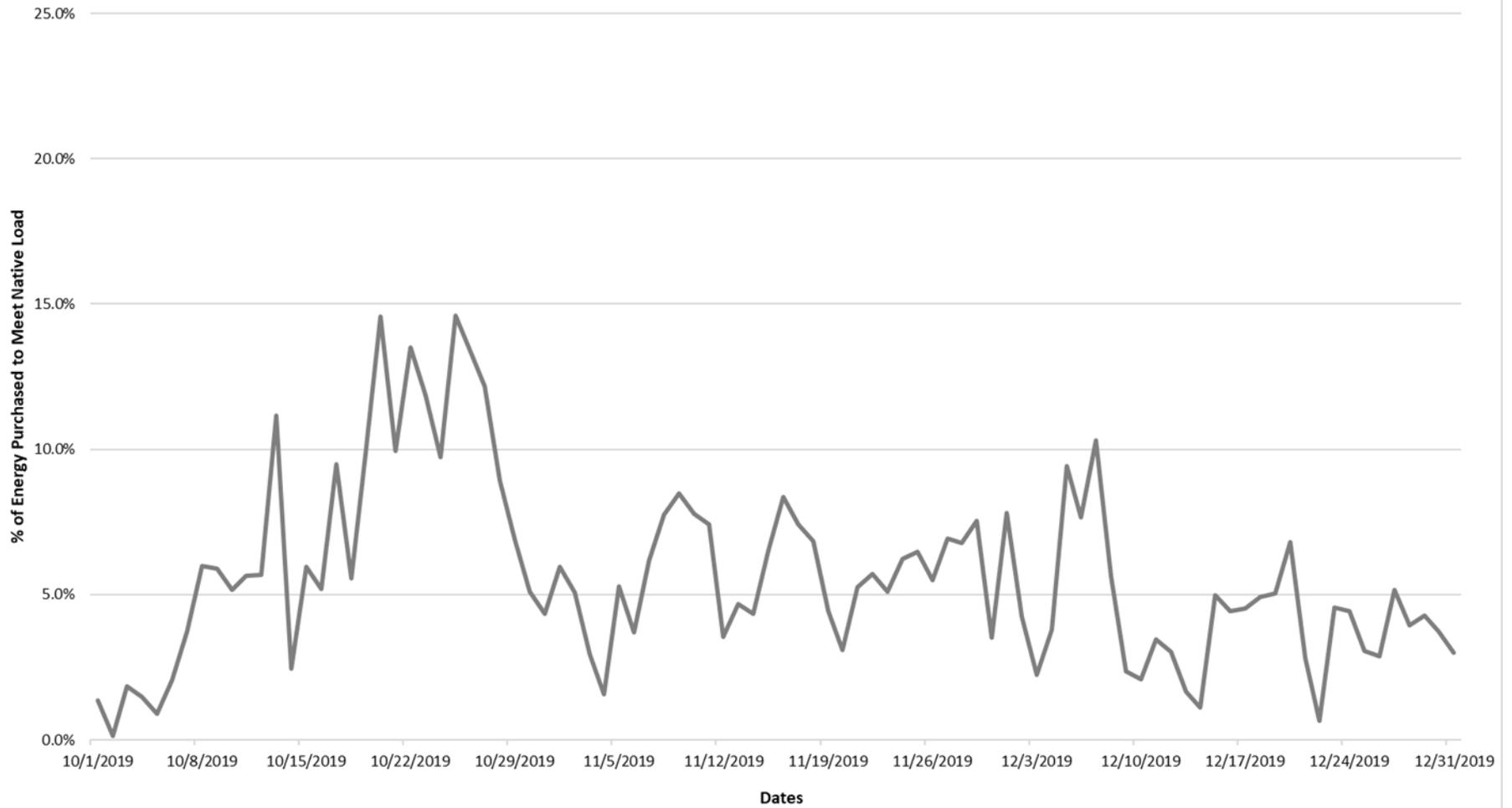


### HEA - % of Energy Purchased to Meet Native Load (2019 Q4)

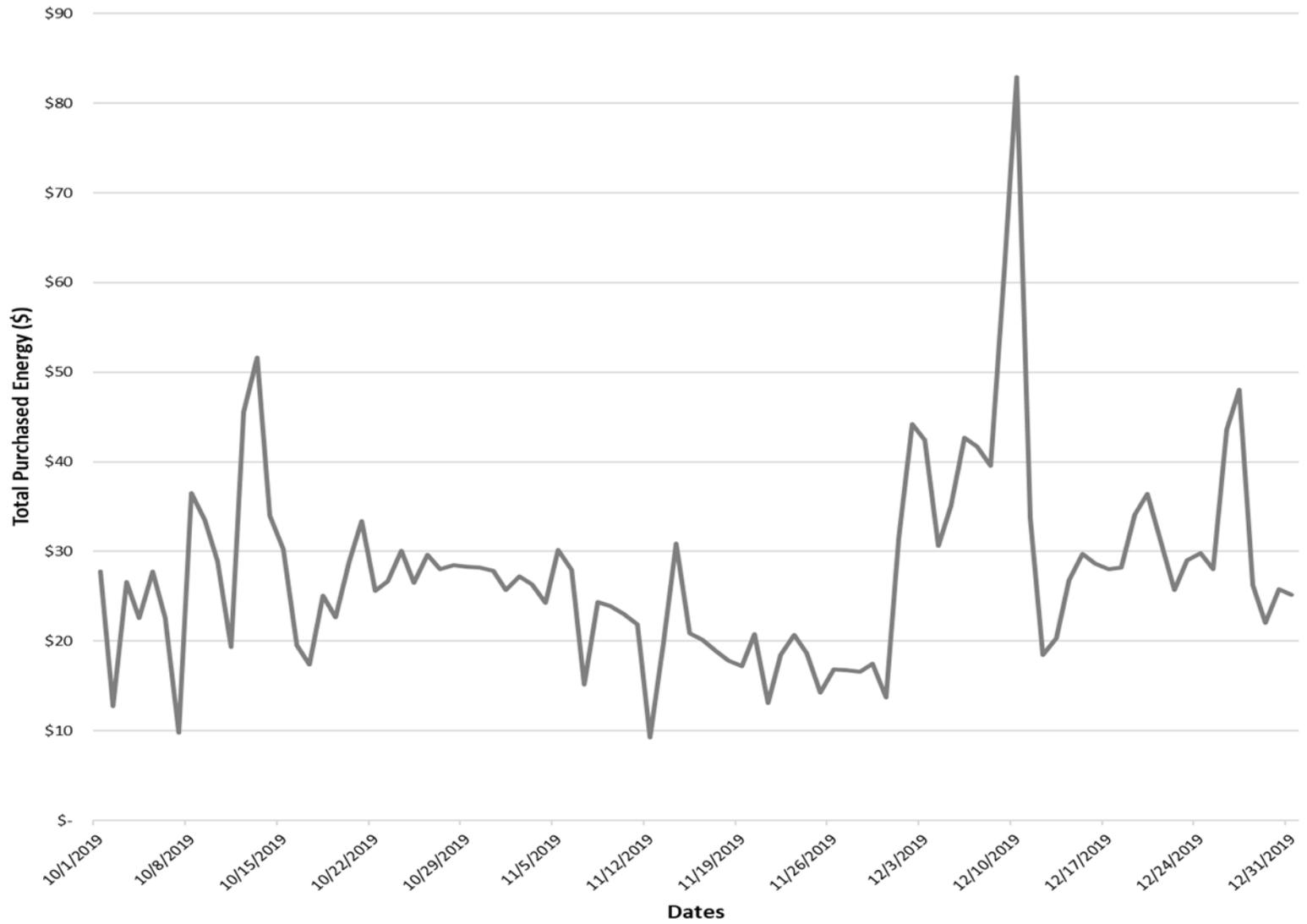




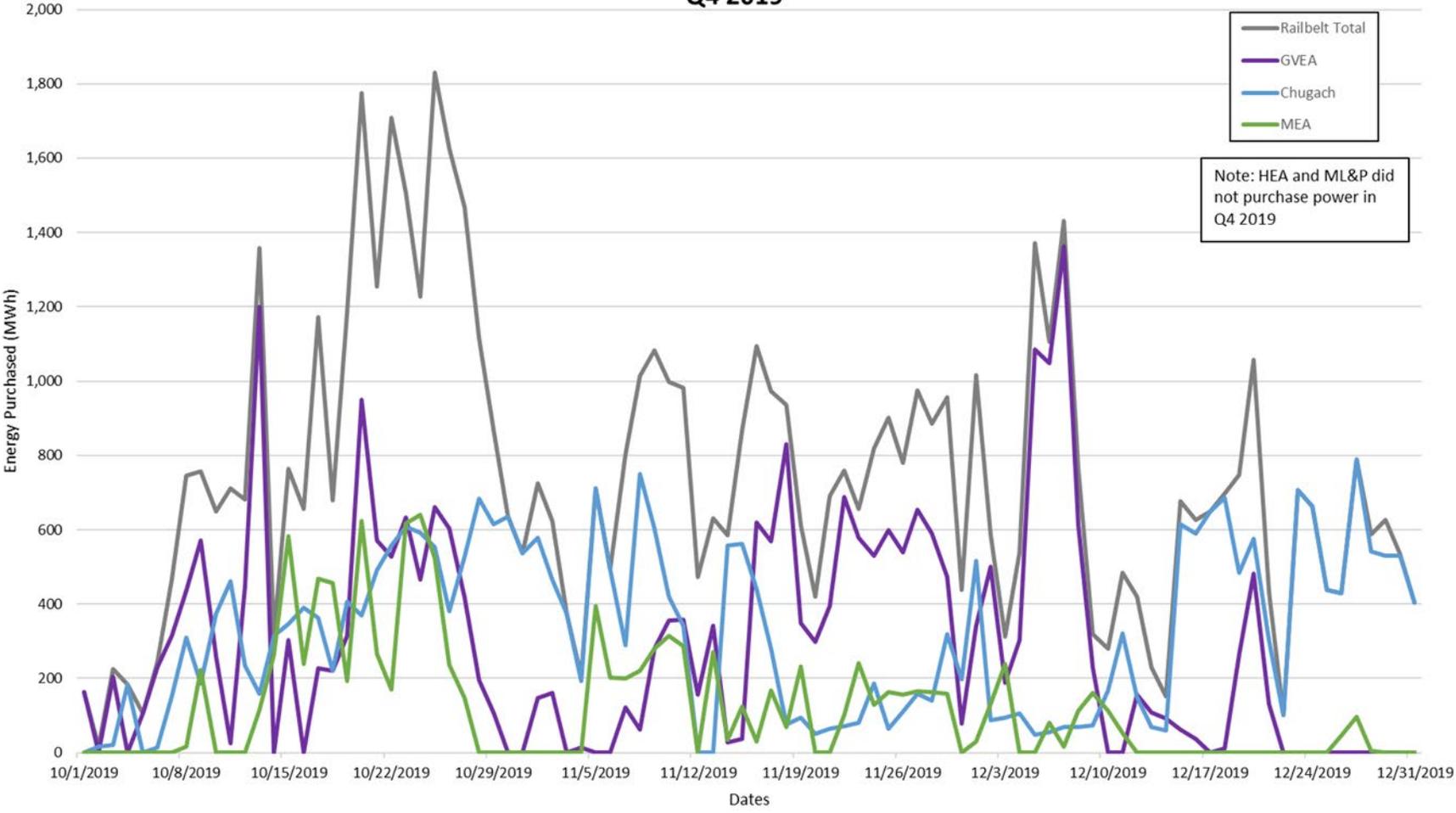
**All Railbelt Utilites - Q4 2019**  
**% of Energy Purchased to Meet Native Load**

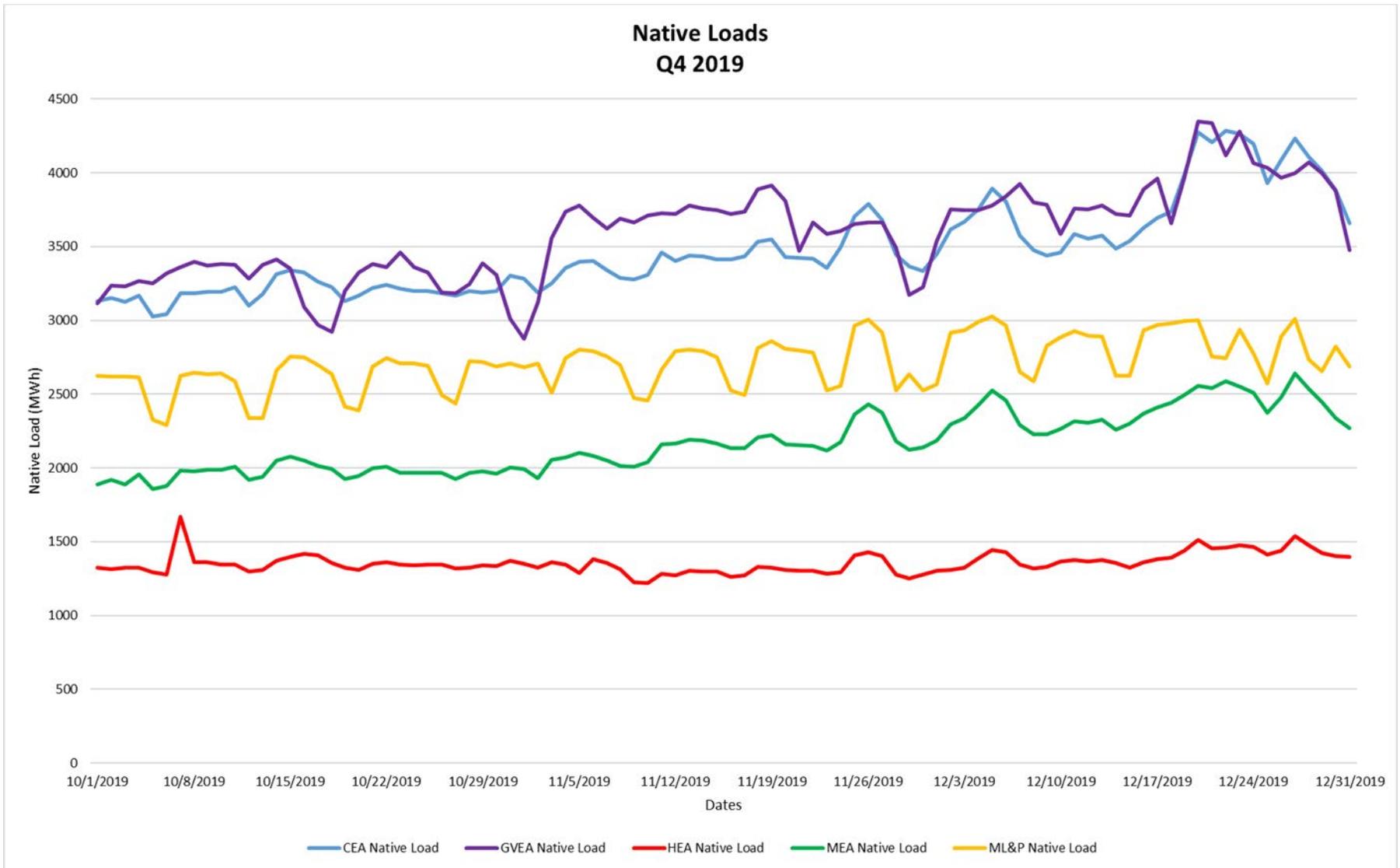


**All Railbelt Utilities- Q4 2019  
\$/MWh Average Price**

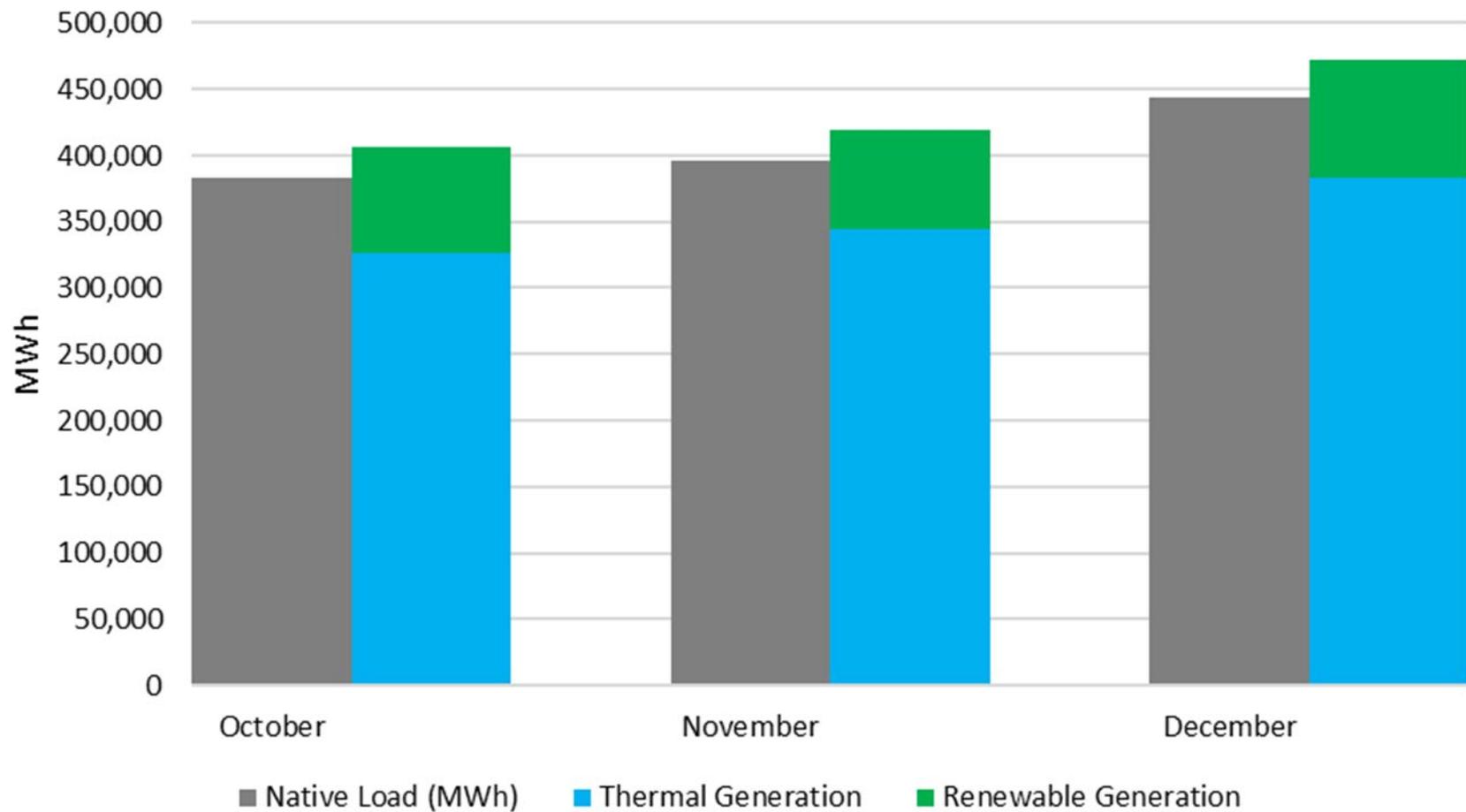


**Total Energy Purchases Comparison  
(MWh)  
Q4 2019**

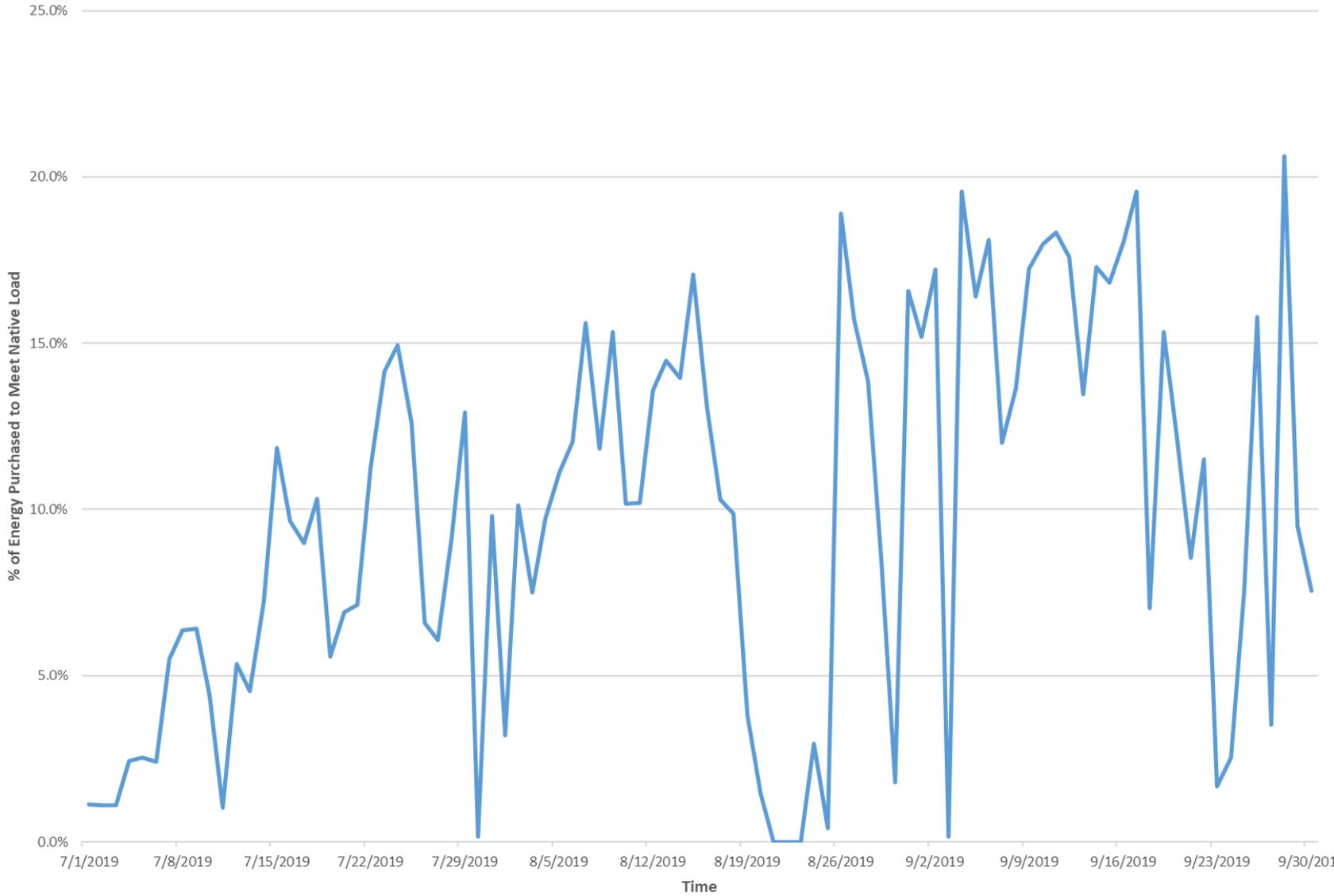




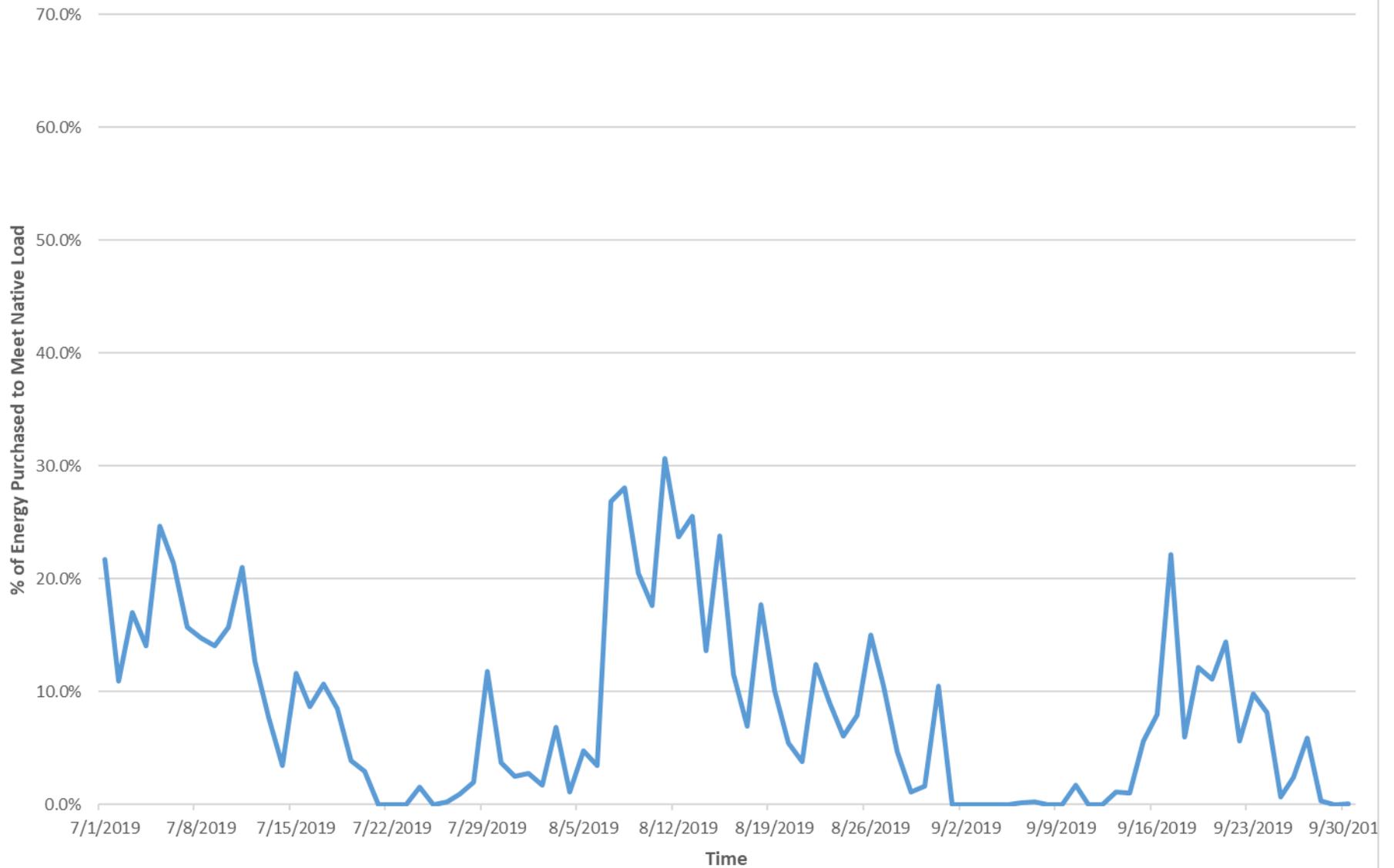
# All Railbelt Utilities Native Load vs. Generation Q4 2019



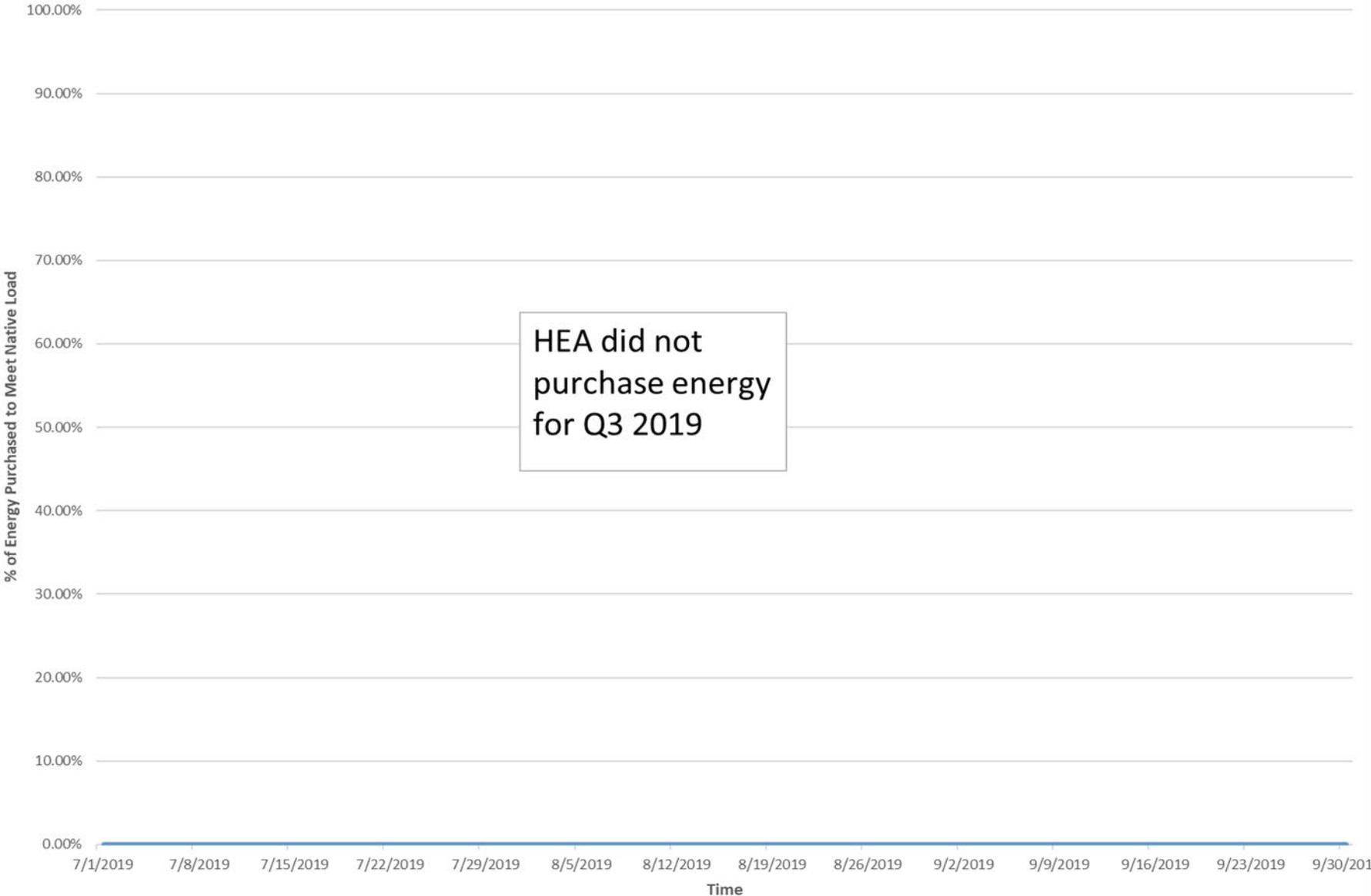
Chugach - % of Energy Purchased to Meet Native Load vs Time (2019 Q3)



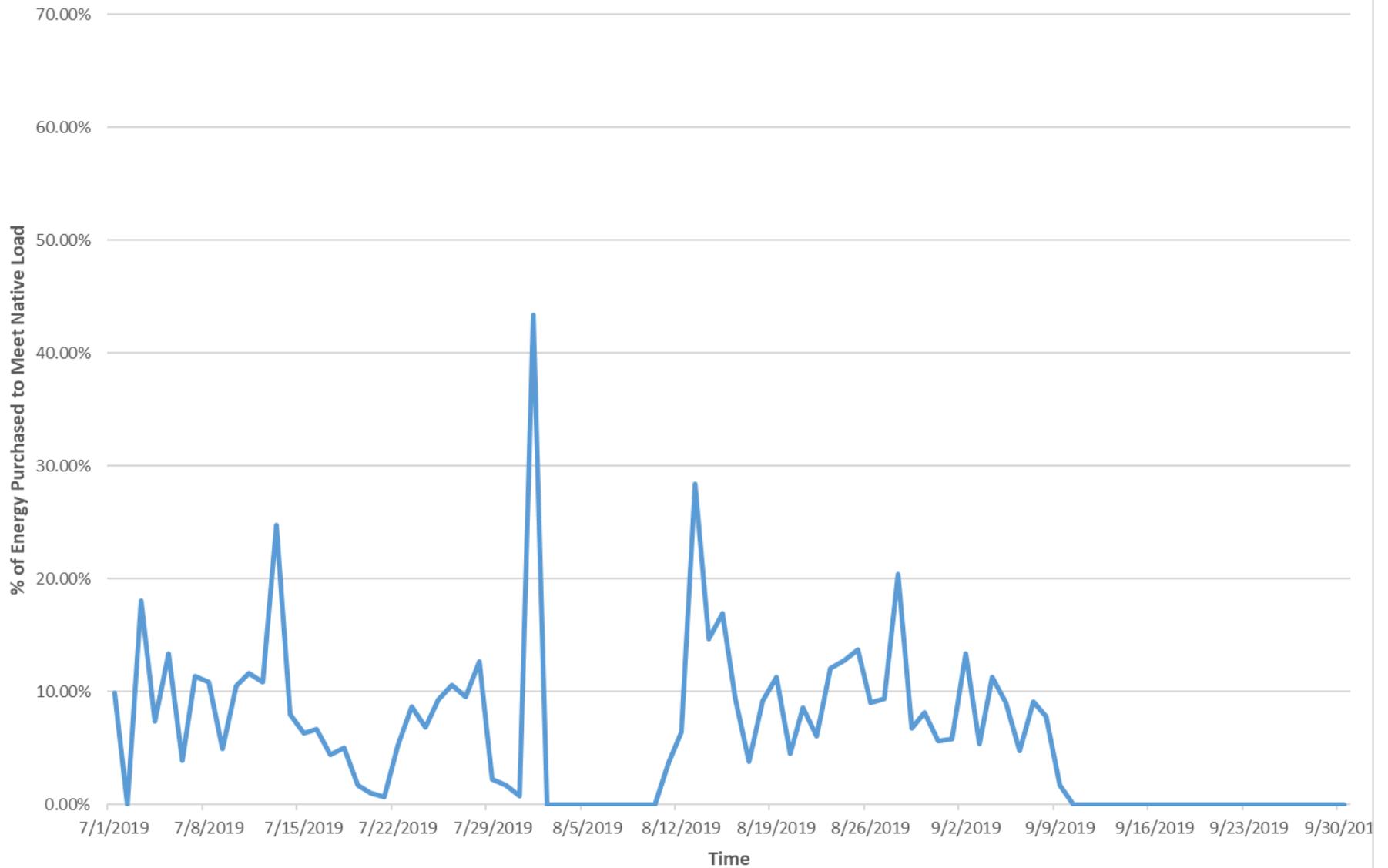
**GVEA - % of Energy Purchased to Meet Native Load vs Time (2019 Q3)**

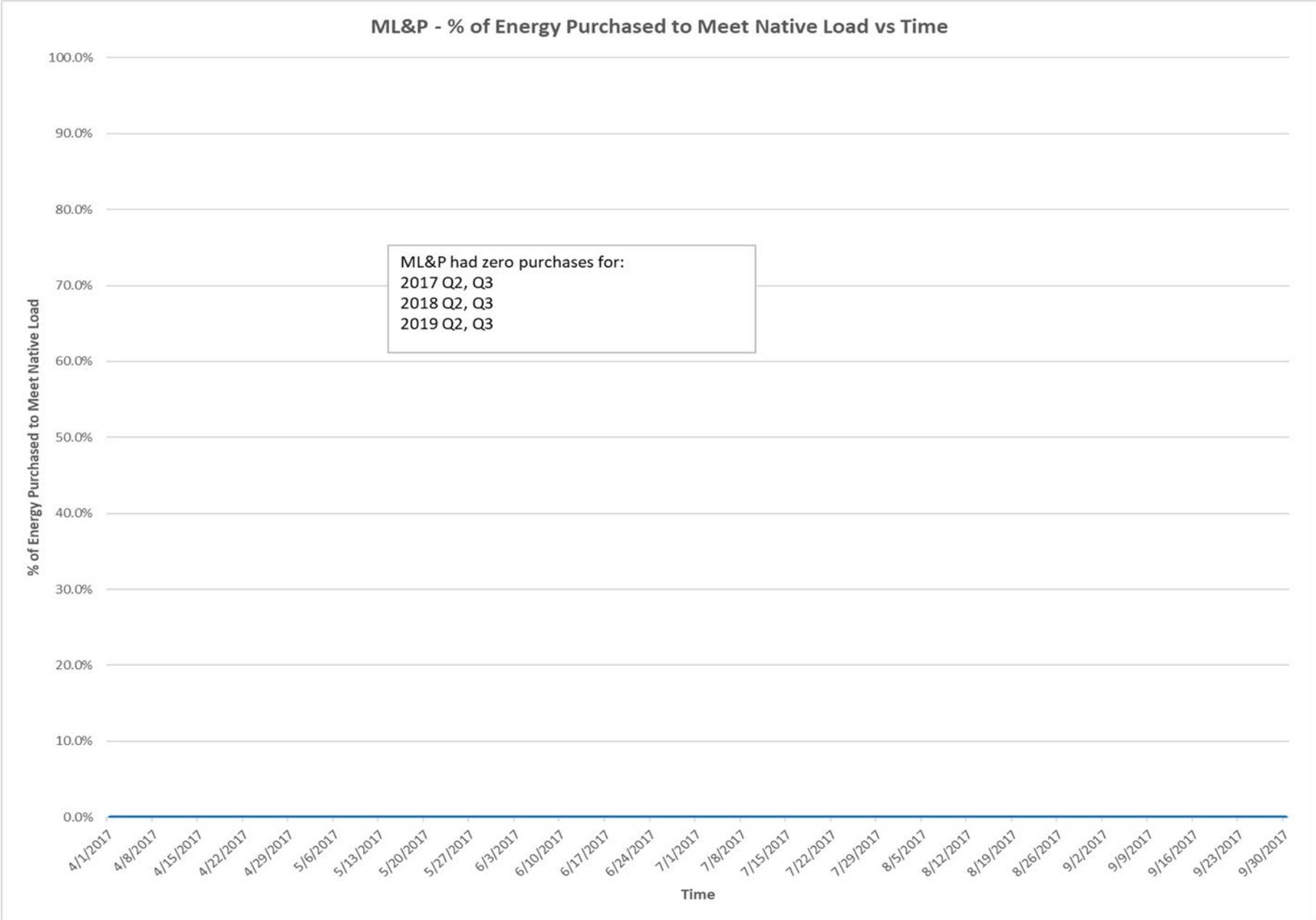


HEA - % of Energy Purchased to Meet Native Load vs Time (2019 Q3)



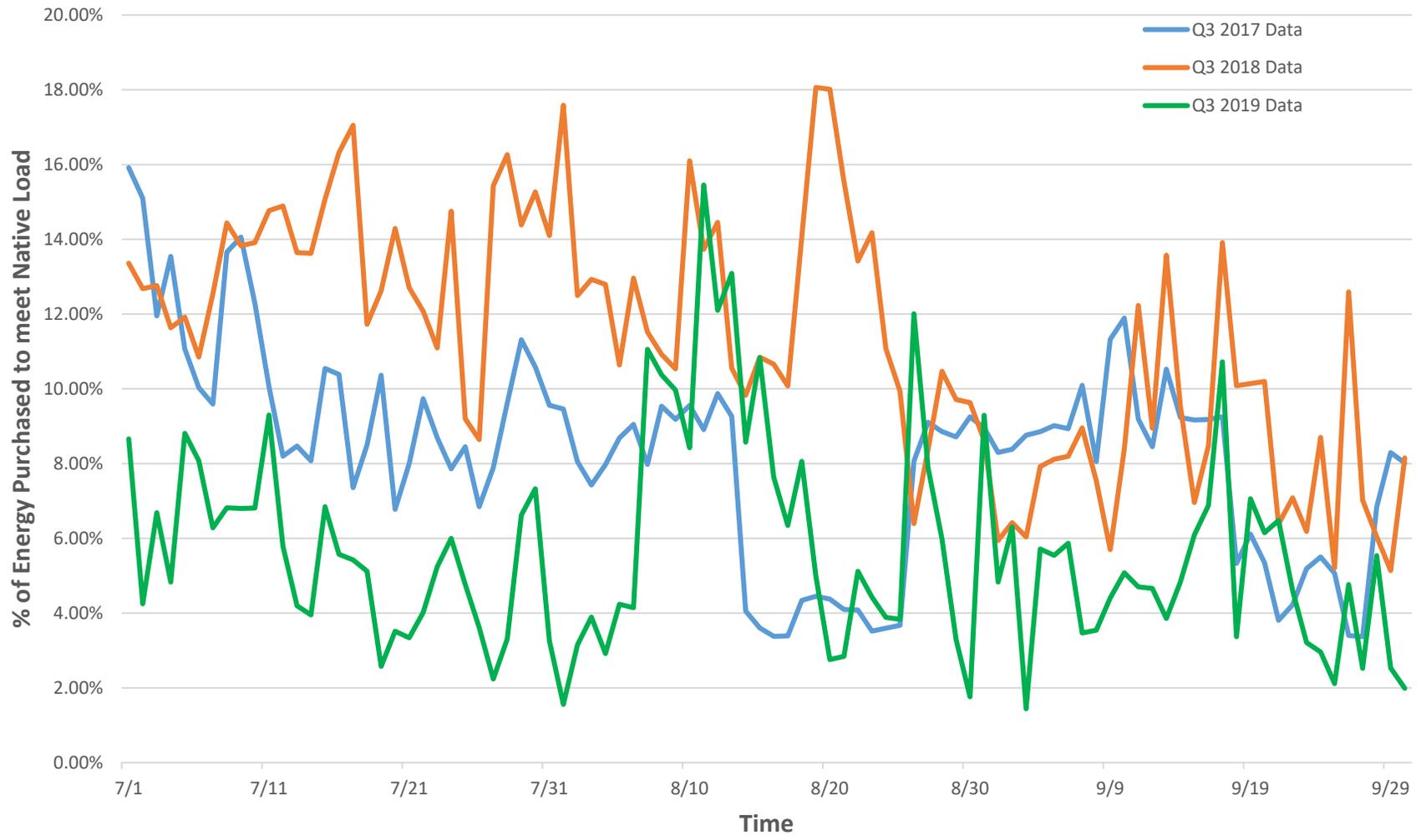
MEA - % of Energy Purchased to Meet Native Load vs Time (2019 Q3)



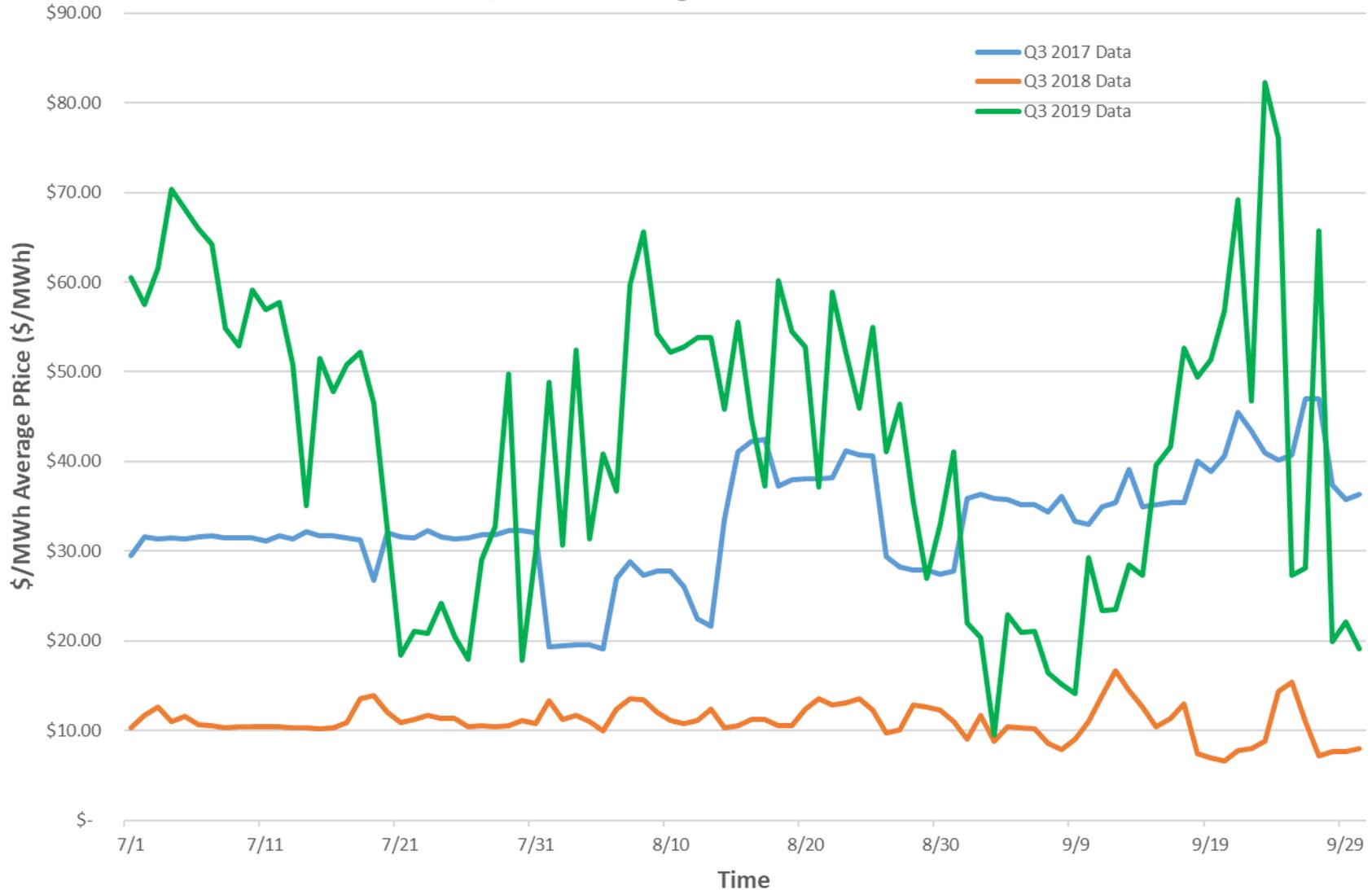


# All Railbelt Utilities

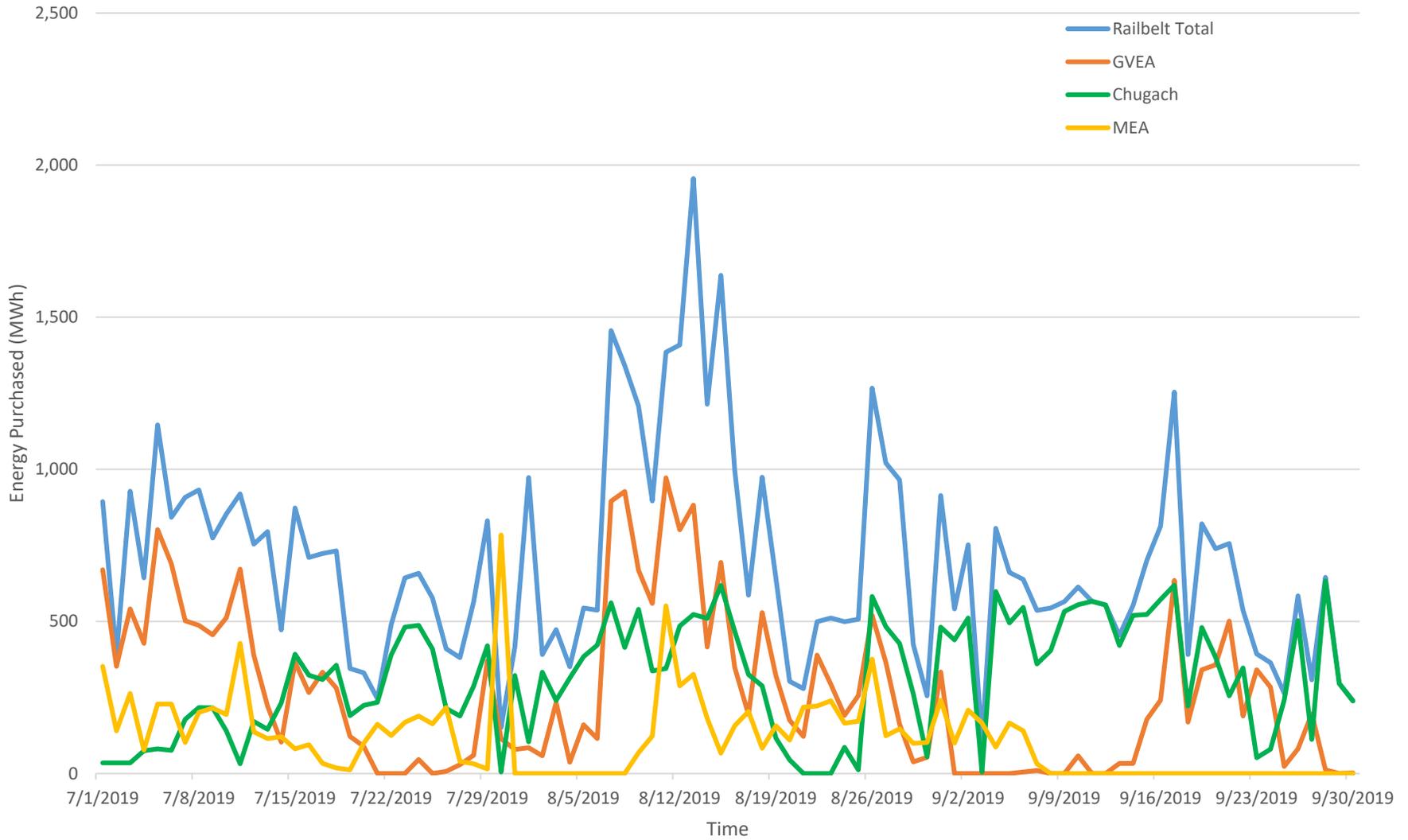
## % of Energy Purchased to Meet Native Load vs Time



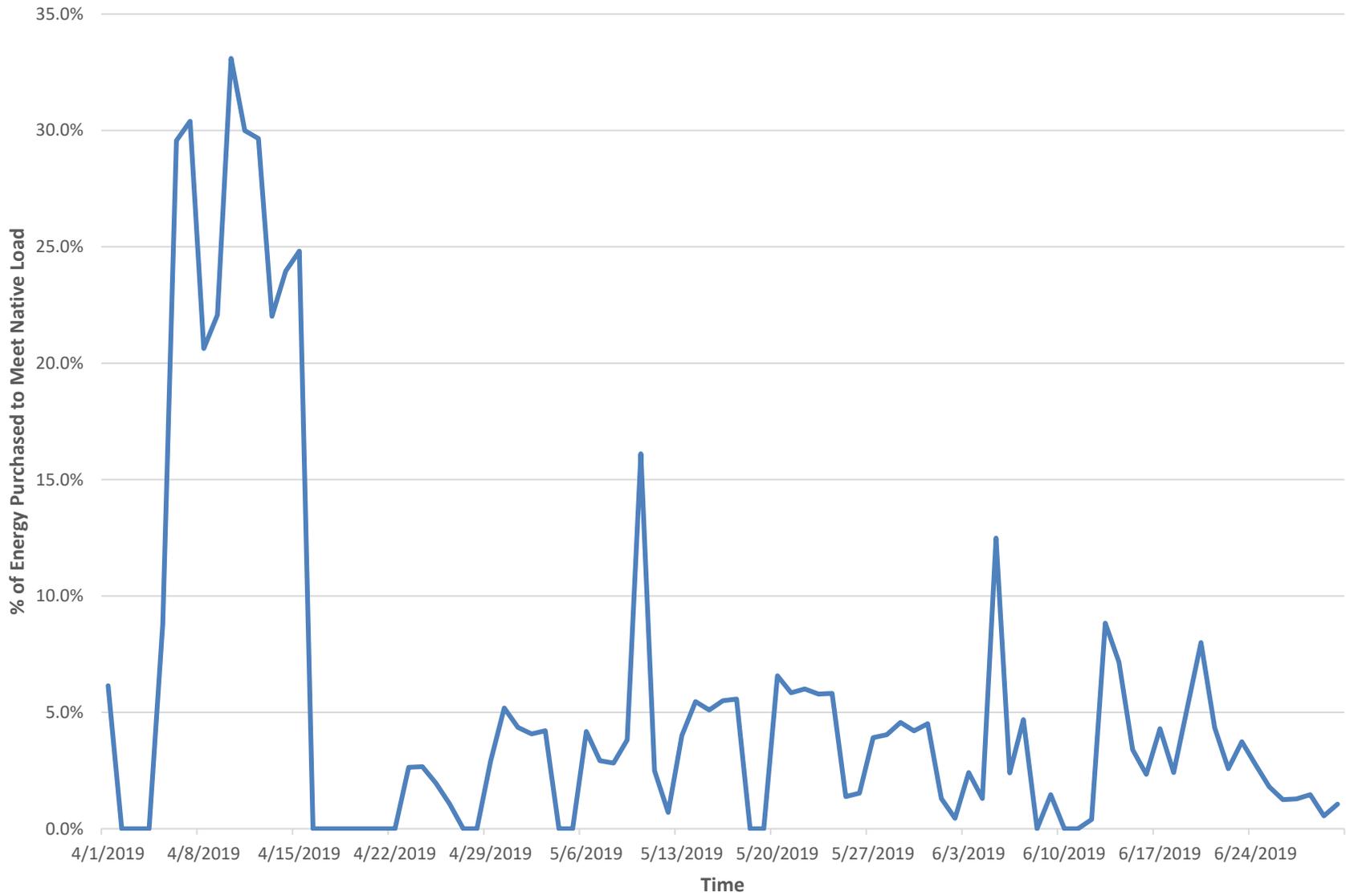
### All Railbelt Utilities \$/MWh Average Price vs Time



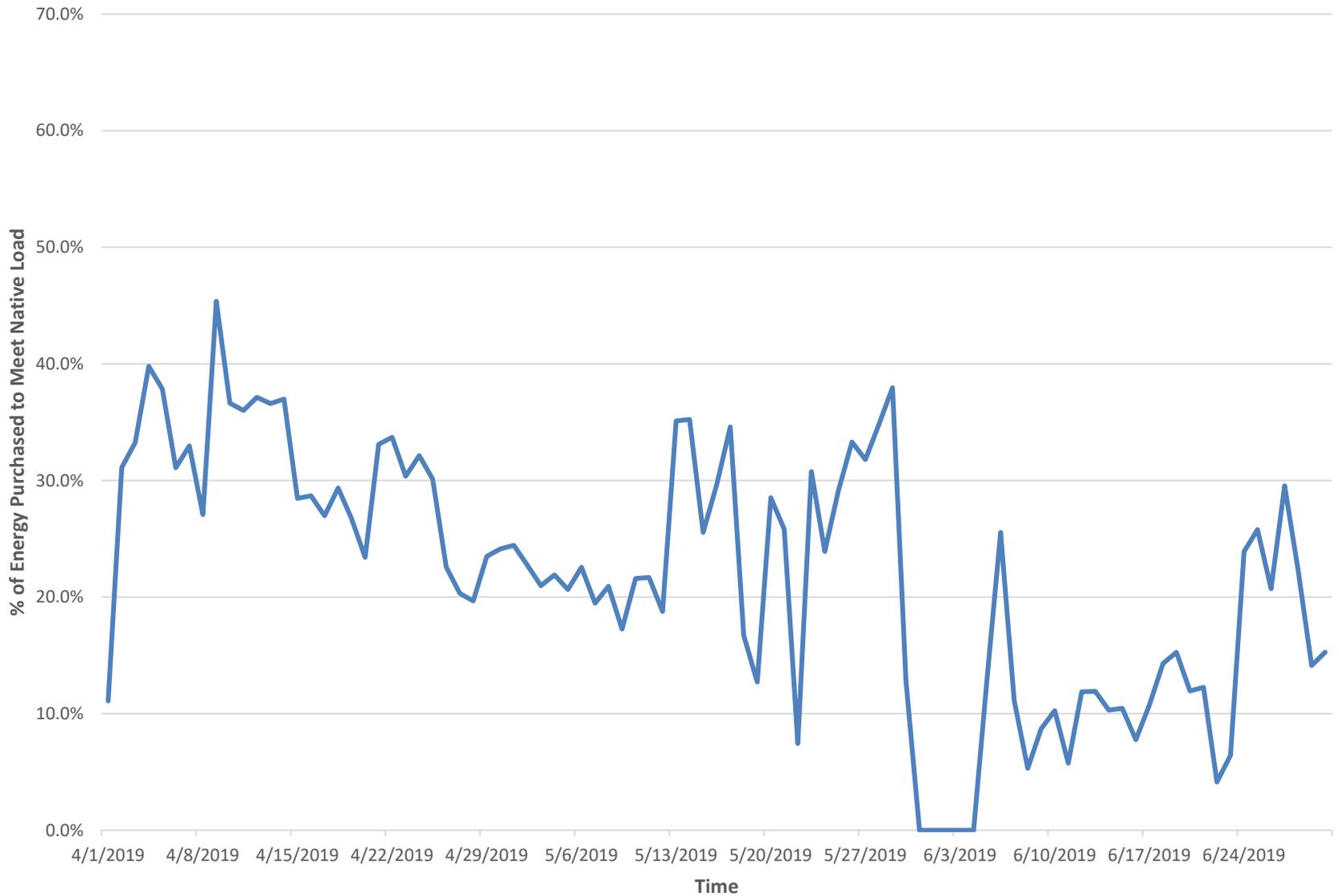
Railbelt Wide Total w/GVEA, MEA, & Chugach Individuality Graphed  
Total Energy Purchases (MWh) vs Time (2019 Q3)



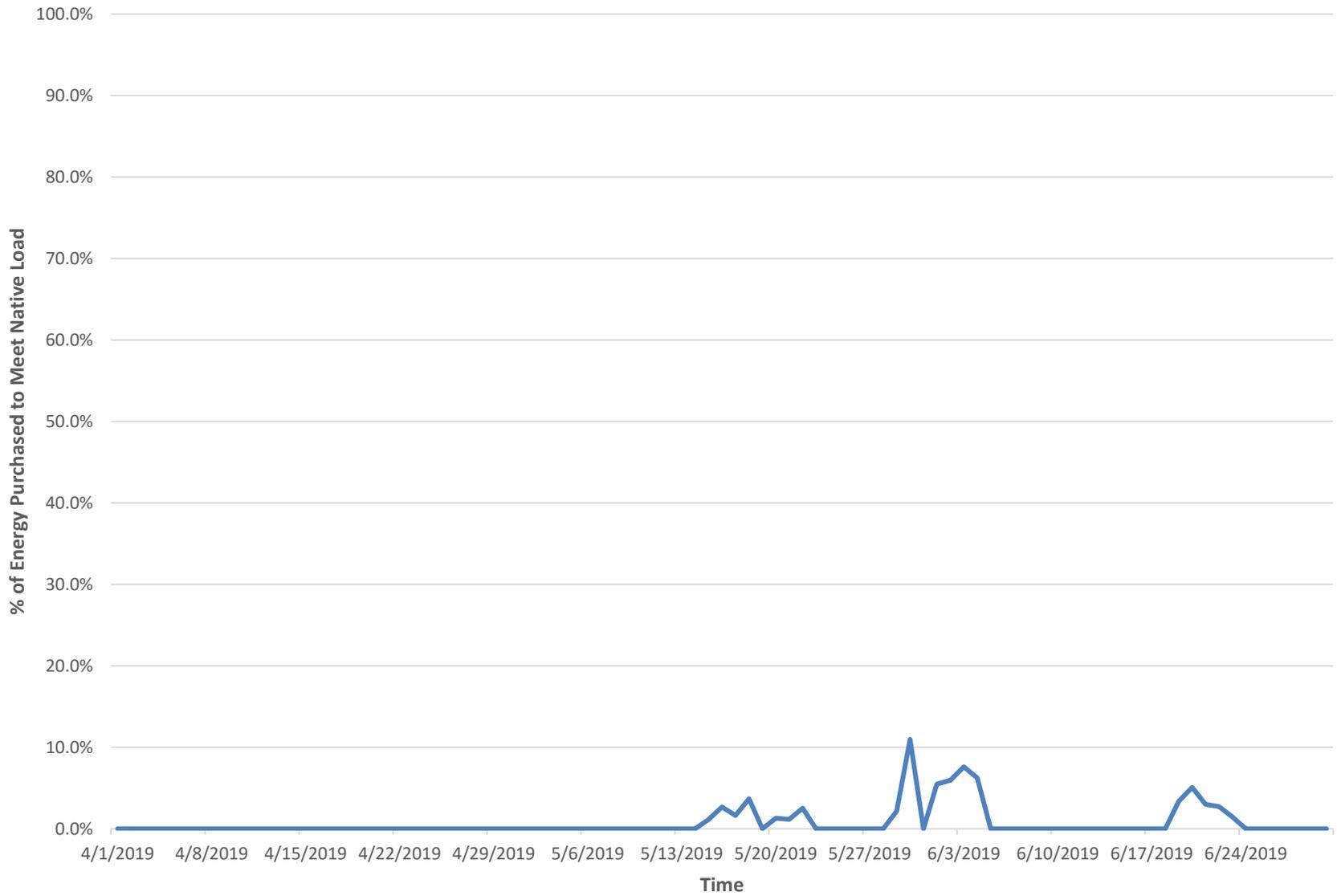
Chugach - % of Energy Purchased to Meet Native Load vs Time (2019 Q2)



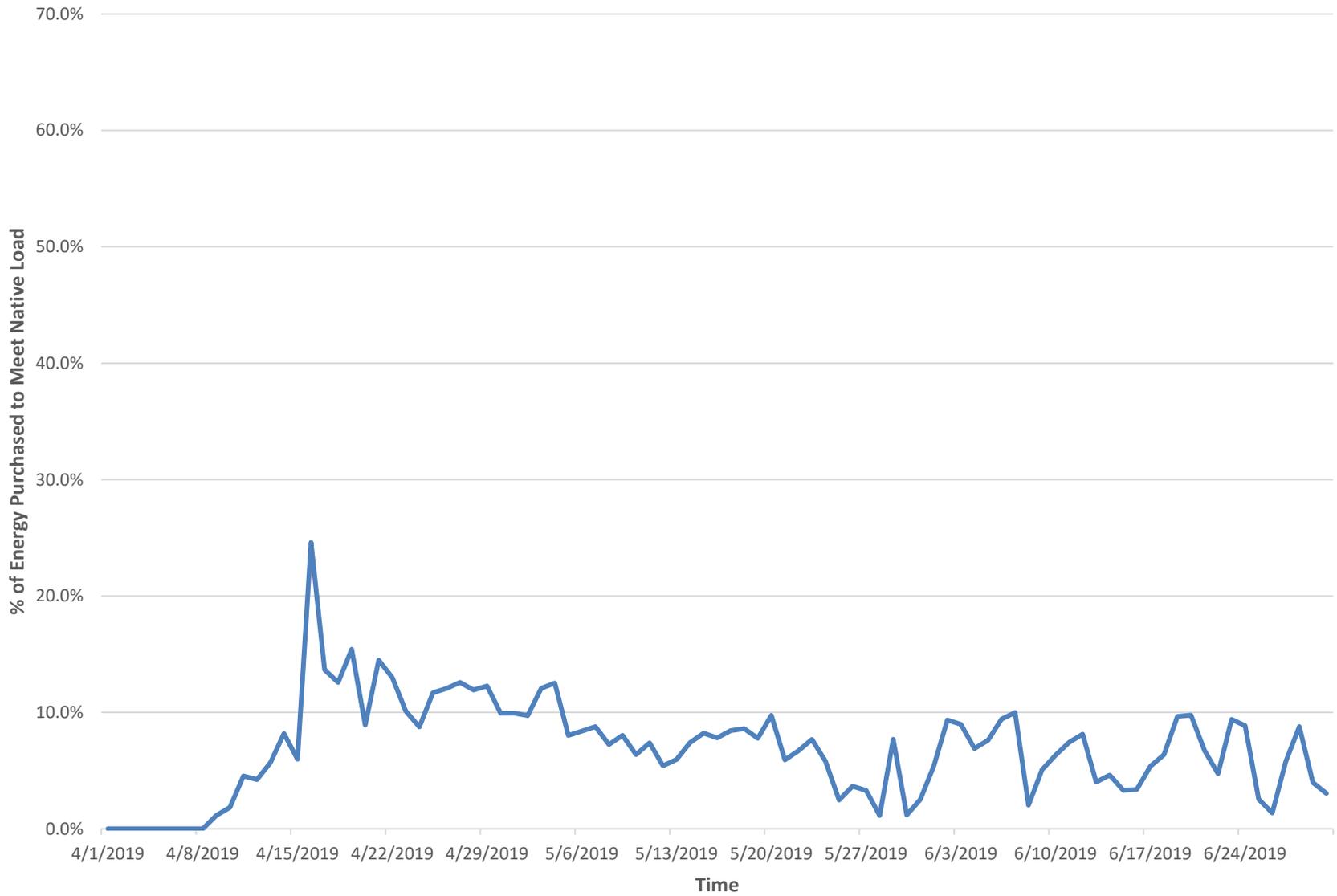
GVEA - % of Energy Purchased to Meet Native Load vs Time (2019 Q2)



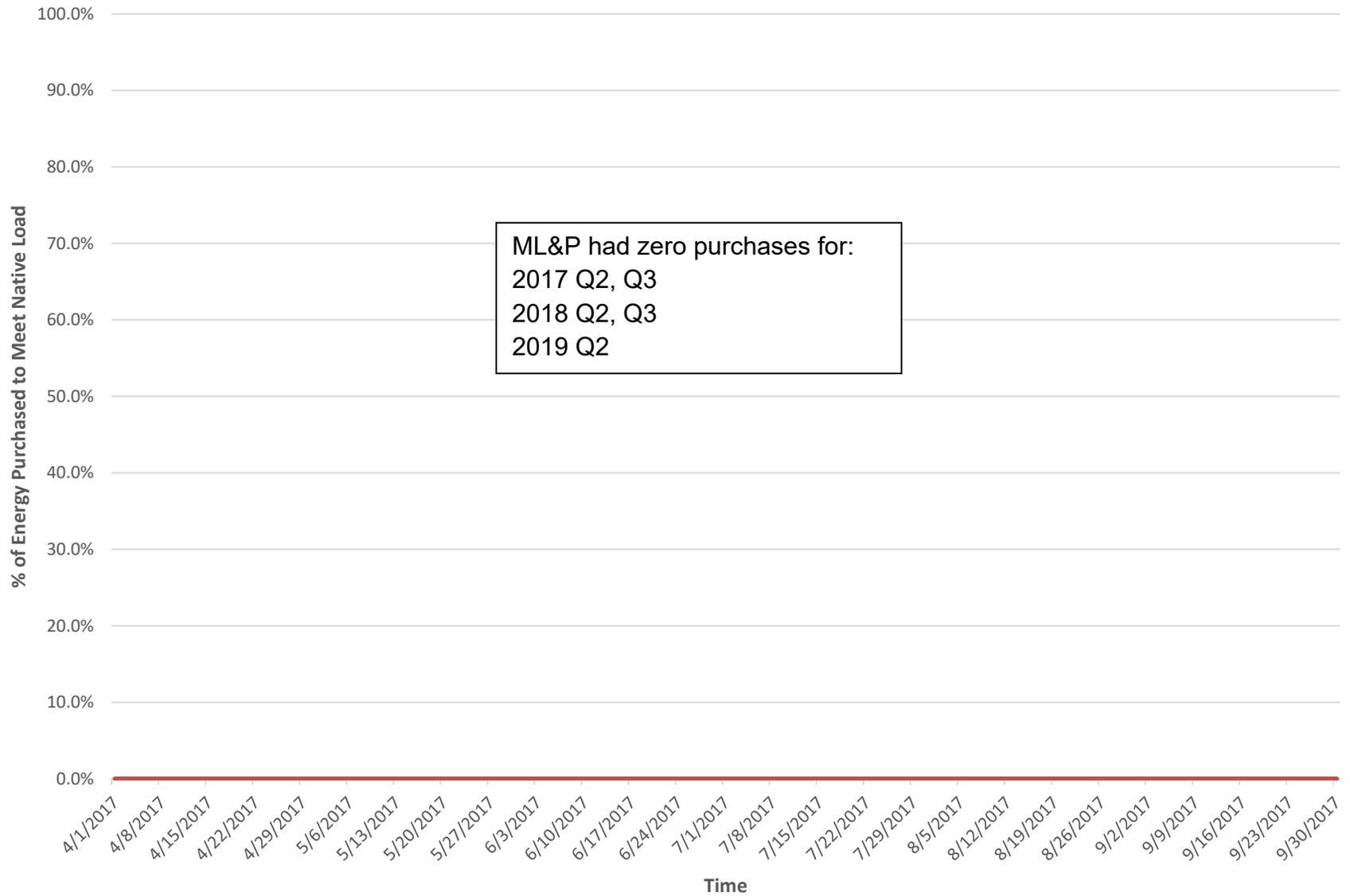
HEA - % of Energy Purchased to Meet Native Load vs Time (2019 Q2)



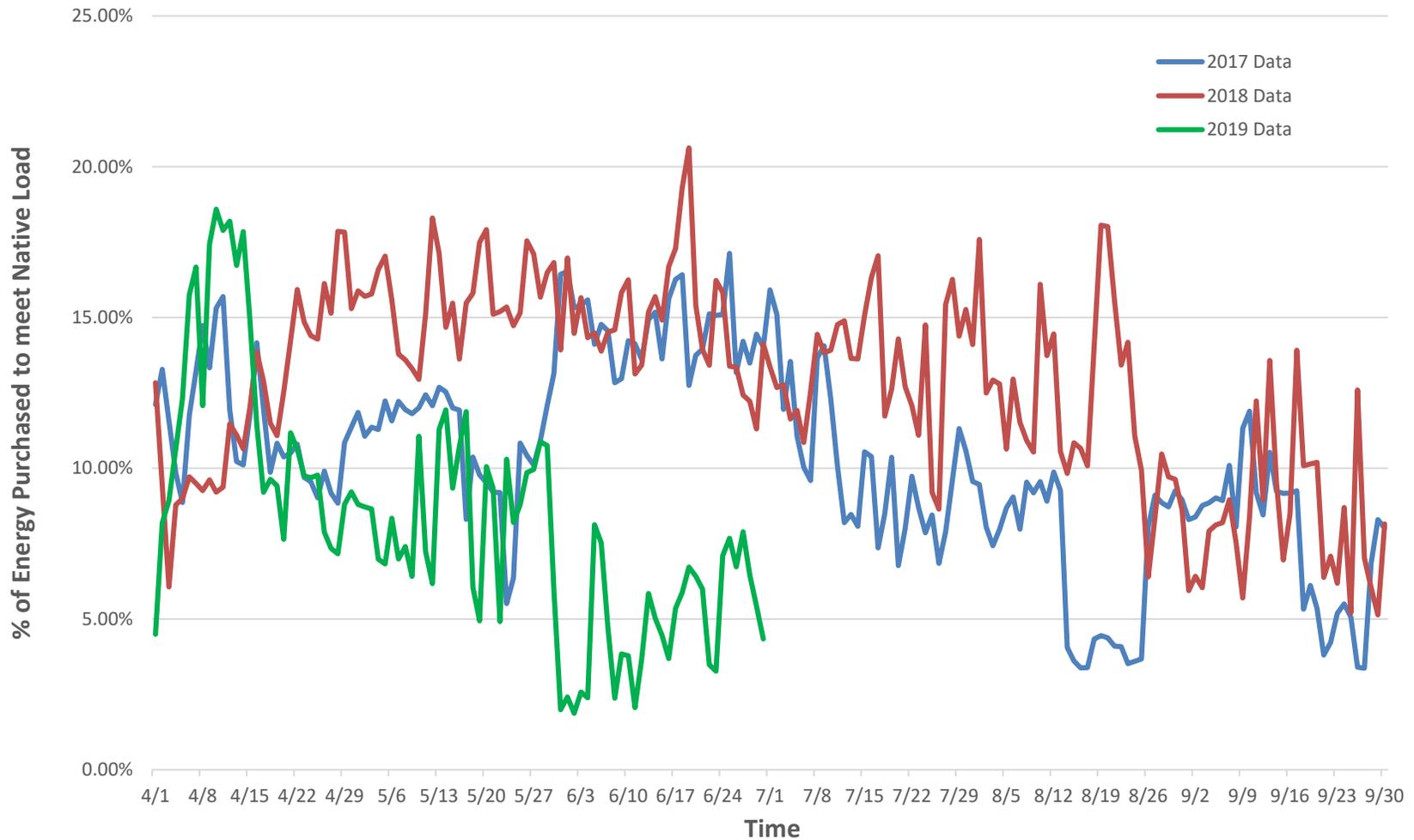
MEA - % of Energy Purchased to Meet Native Load vs Time (2019 Q2)



### ML&P - % of Energy Purchased to Meet Native Load vs Time

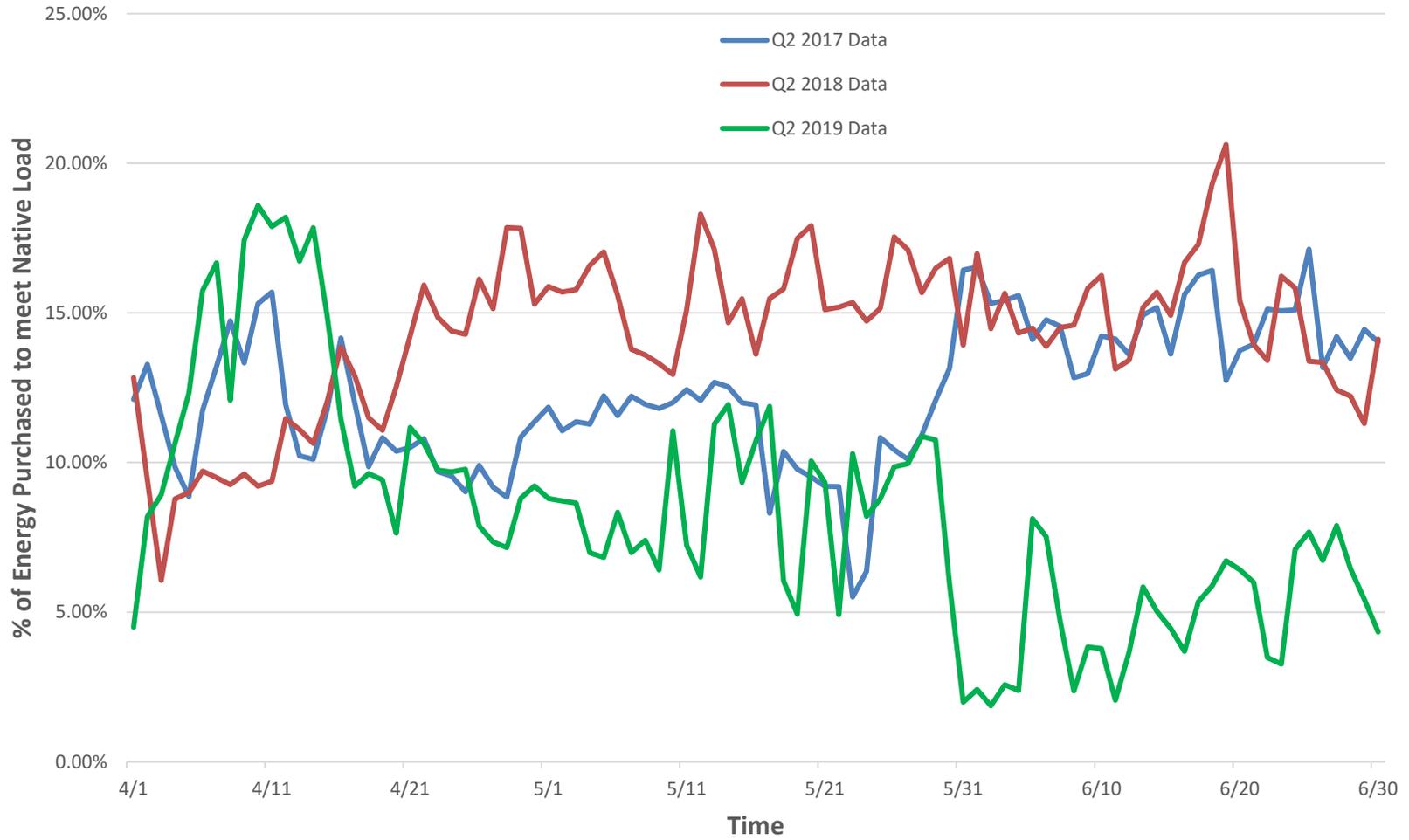


### All Railbelt Utilities % of Energy Purchased to Meet Native Load vs Time

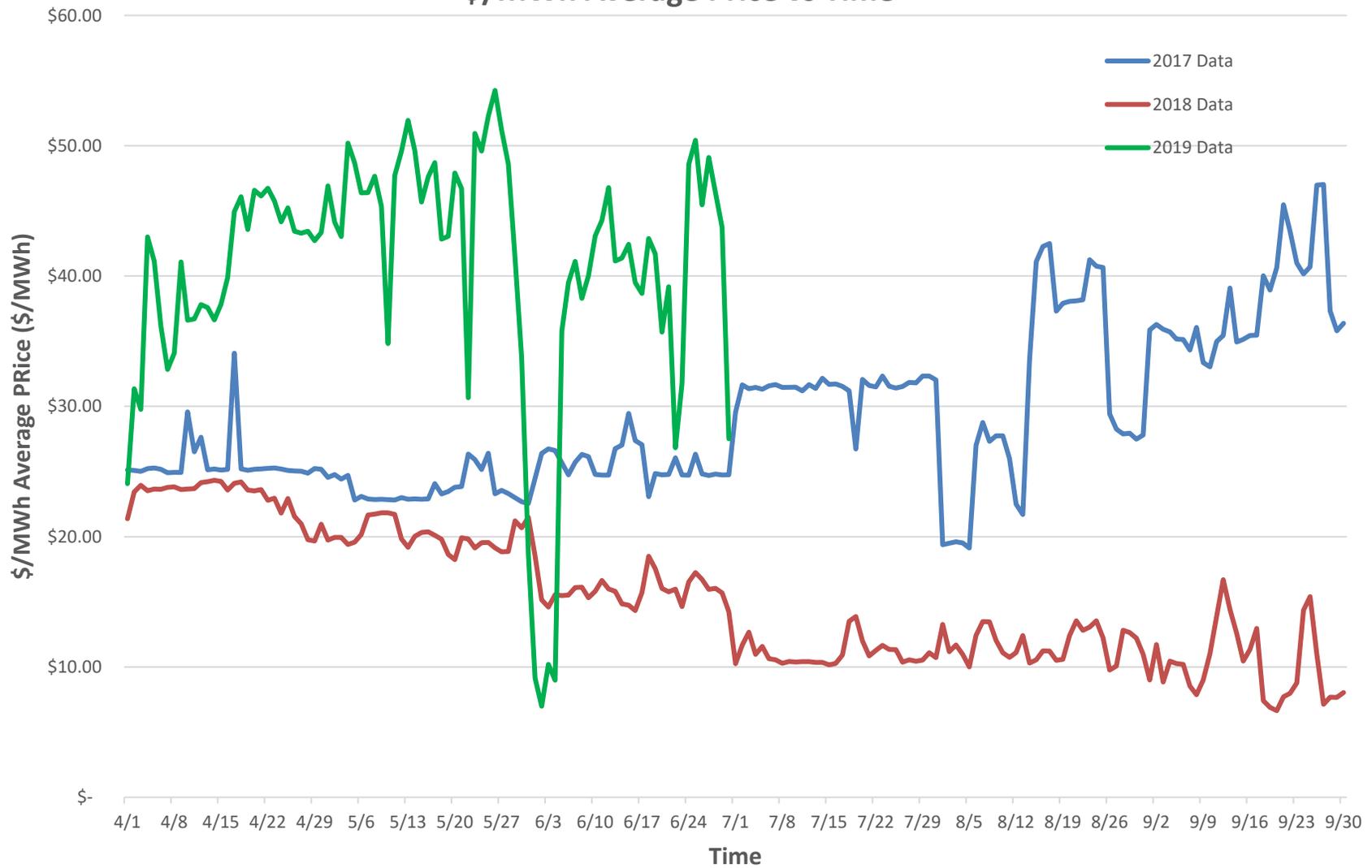


# All Railbelt Utilities

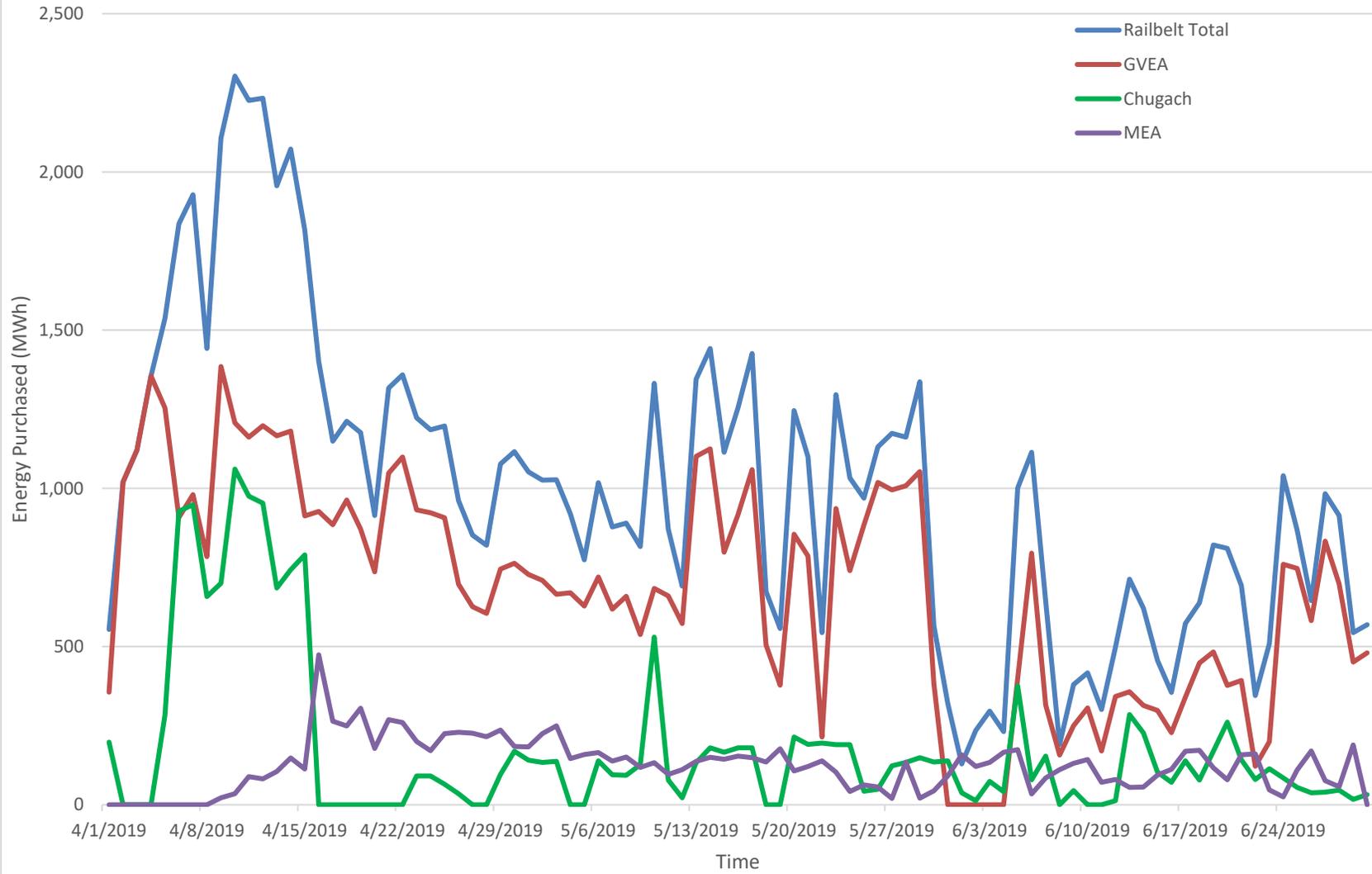
## % of Energy Purchased to Meet Native Load vs Time



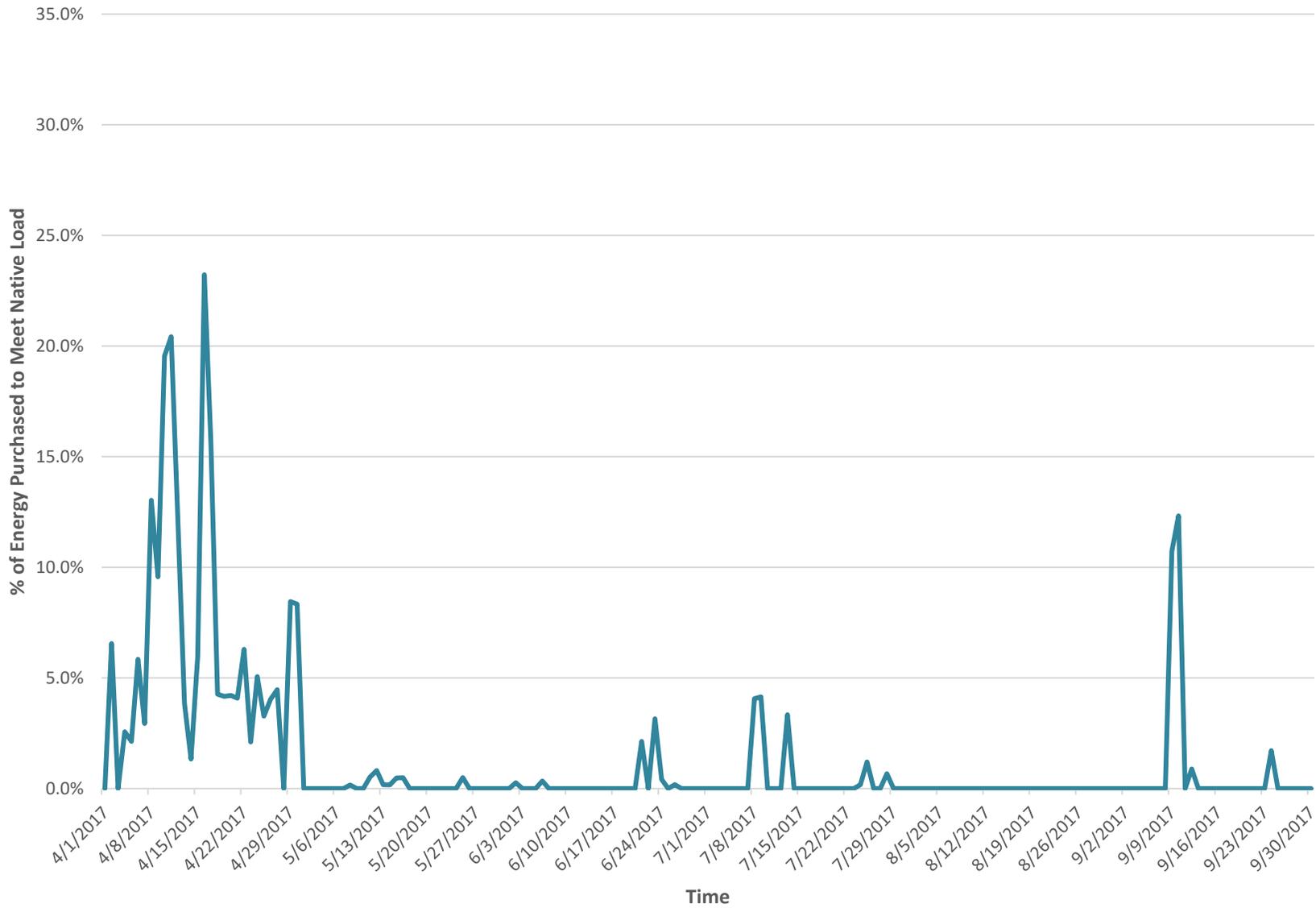
### All Railbelt Utilities \$/MWh Average Price vs Time



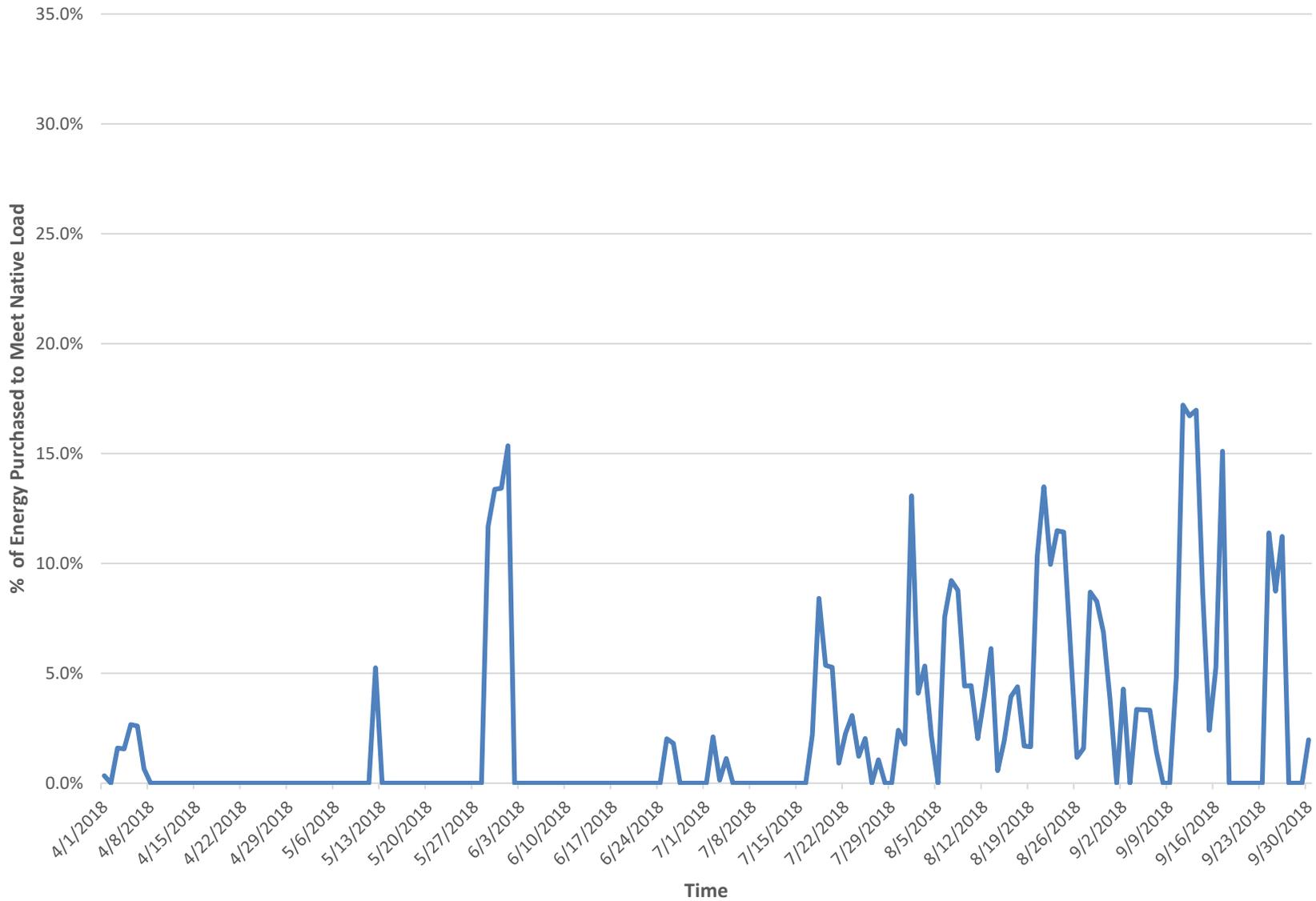
Railbelt Wide Total w/GVEA, MEA, & Chugach Individuality Graphed  
Total Energy Purchases (MWh) vs Time (2019 Q2)



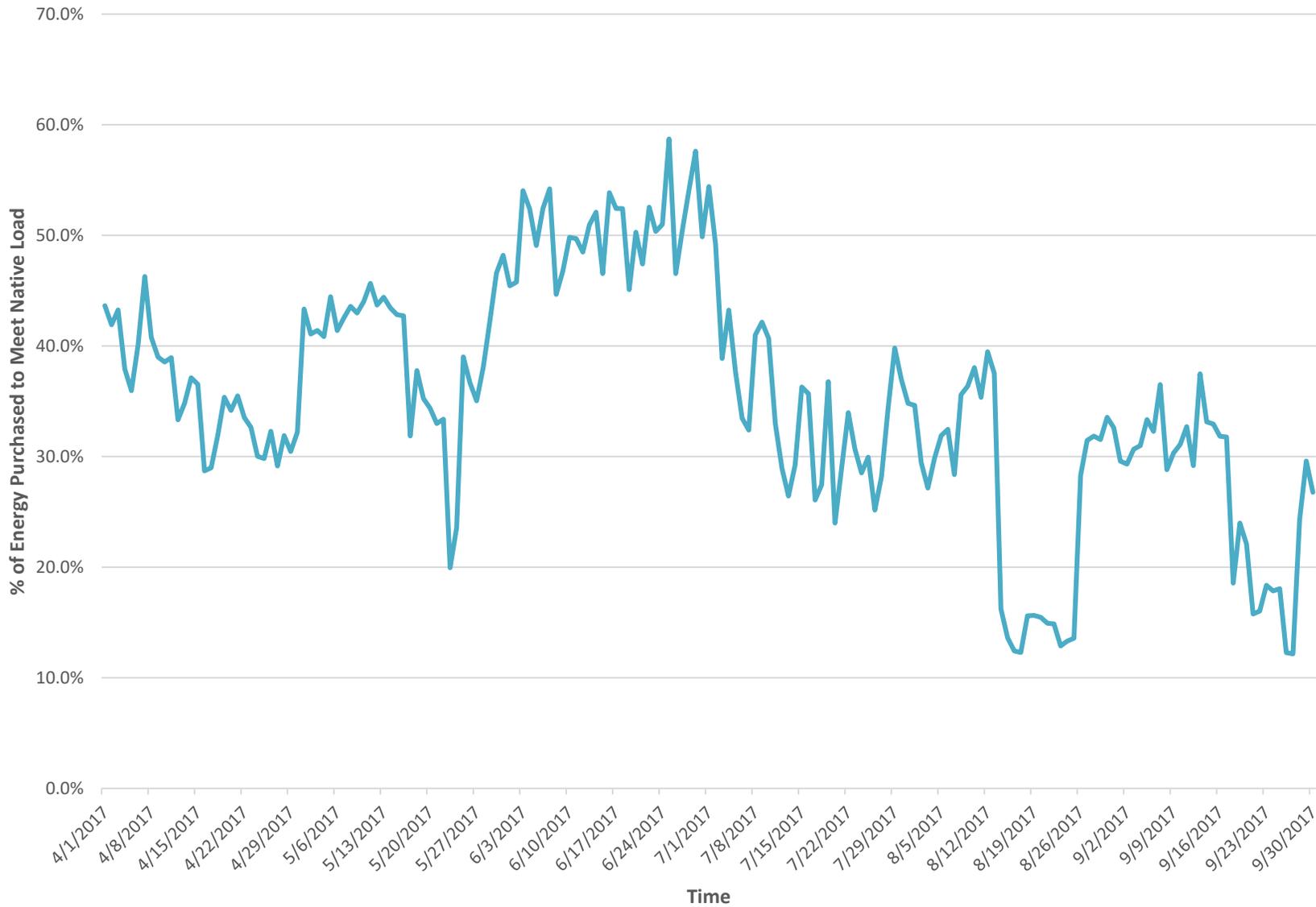
Chugach - % of Energy Purchased to Meet Native Load vs Time (2017 Q2,Q3)



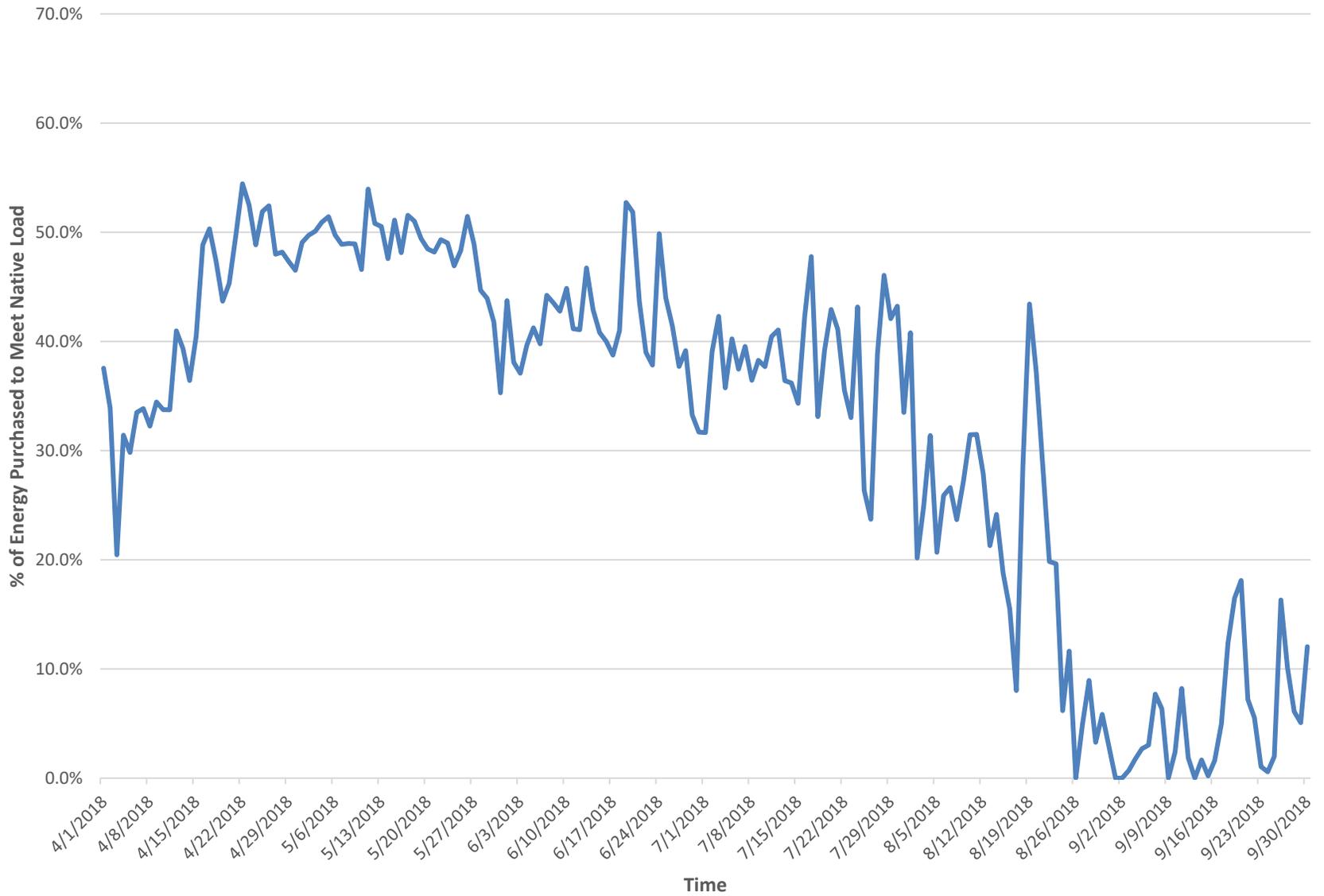
Chugach - % of Energy Purchased to Meet Native Load vs Time (2018 Q2,Q3)



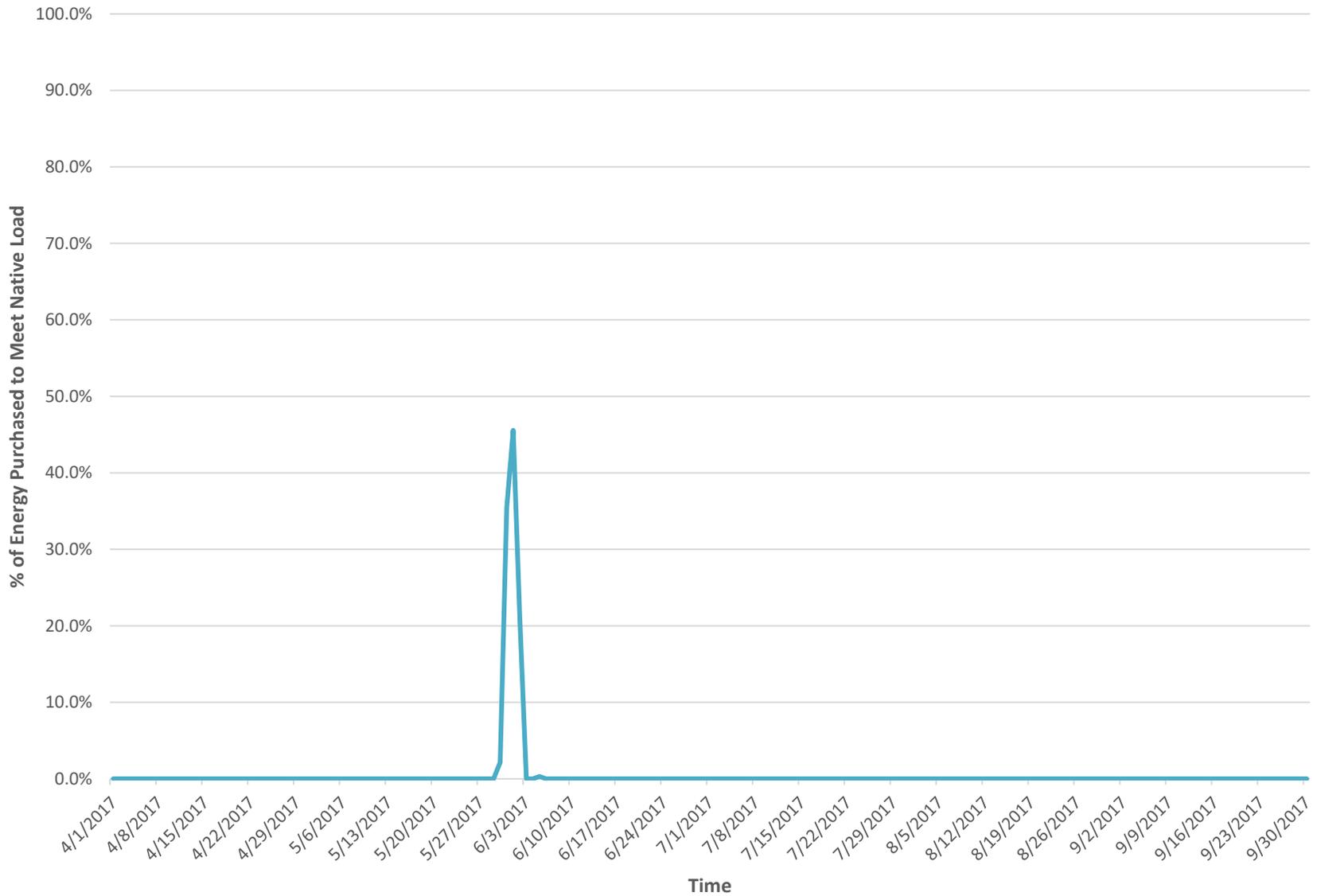
**GVEA - % of Energy Purchased to Meet Native Load vs Time (2017 Q2,Q3)**



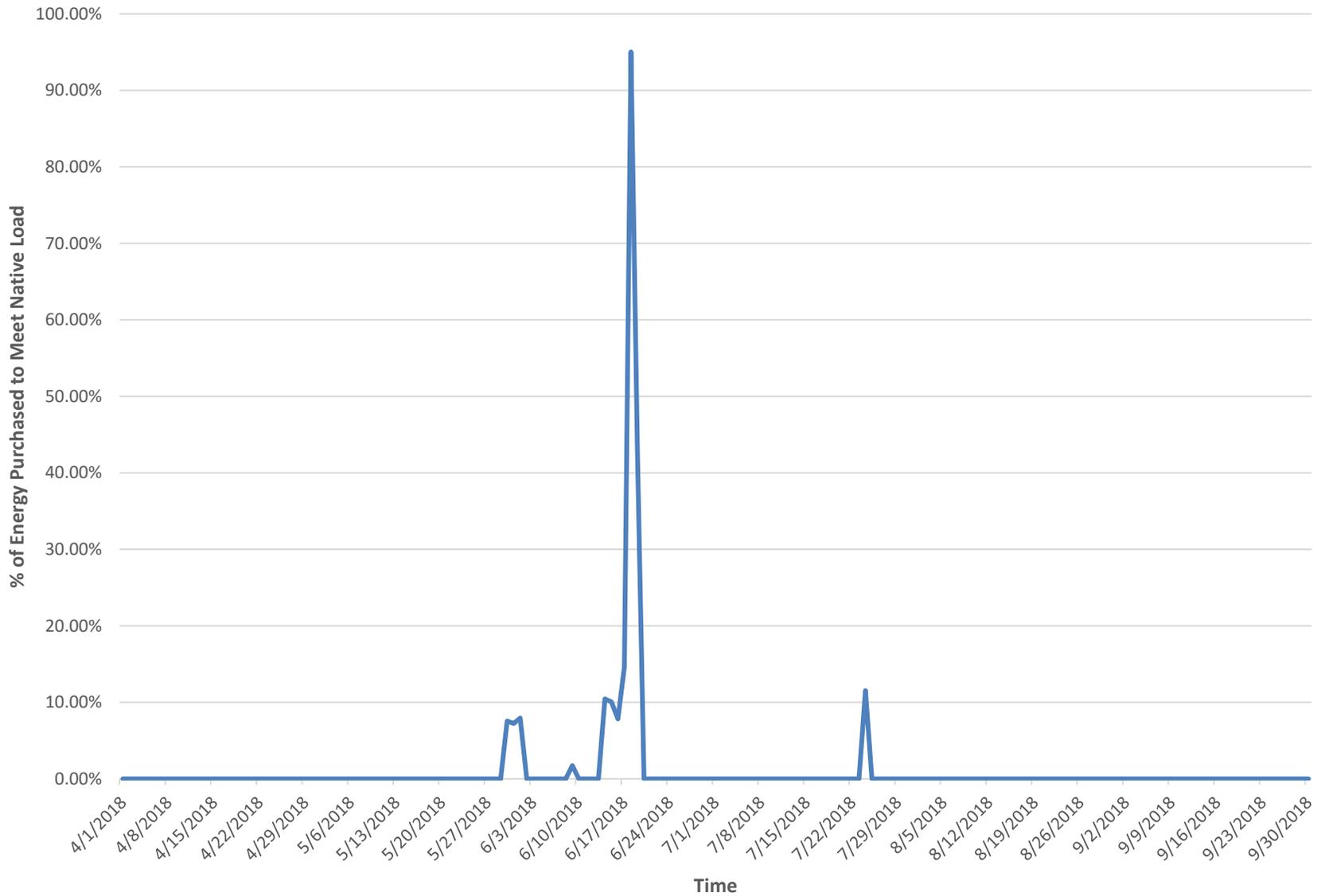
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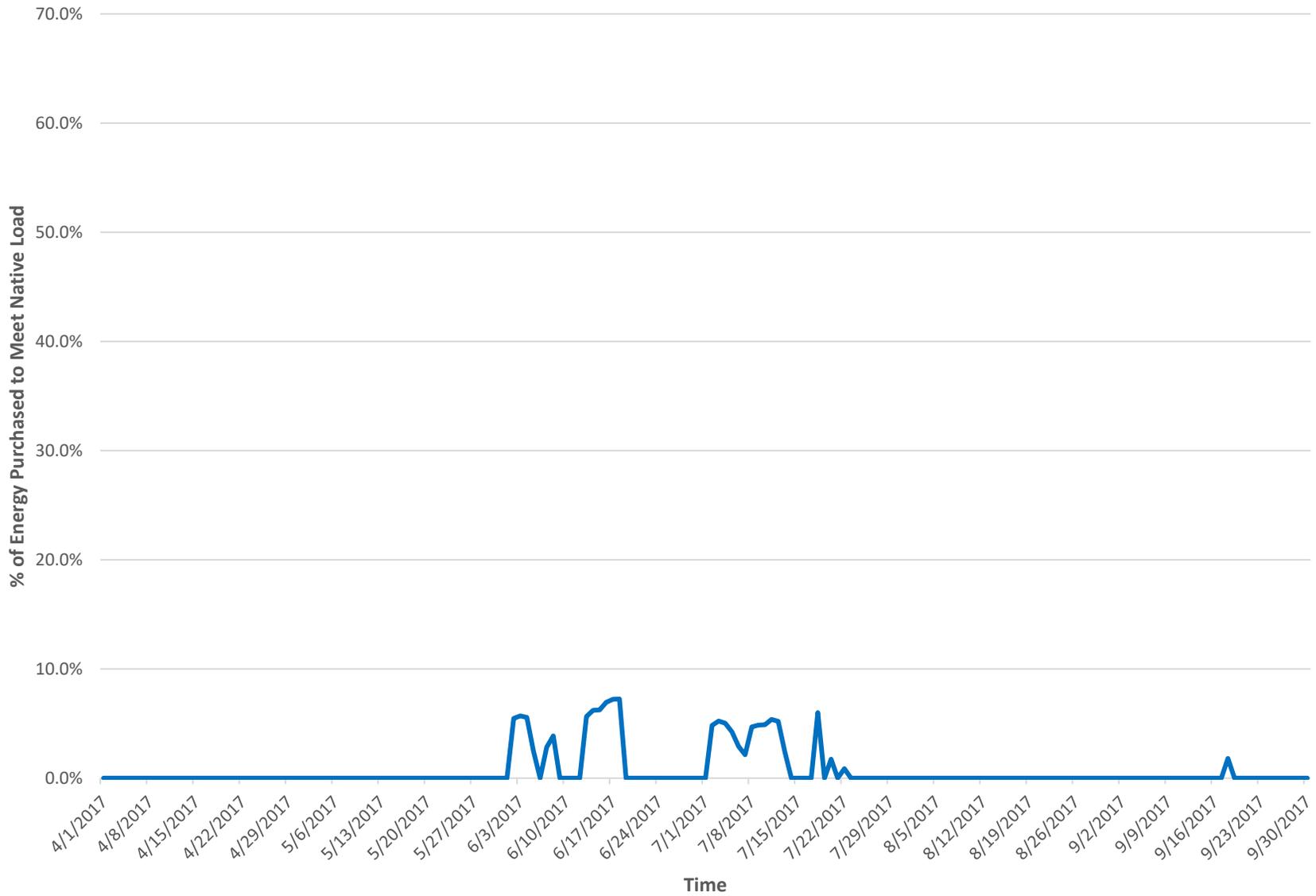
HEA - % of Energy Purchased to Meet Native Load vs Time (2017 Q2,Q3)



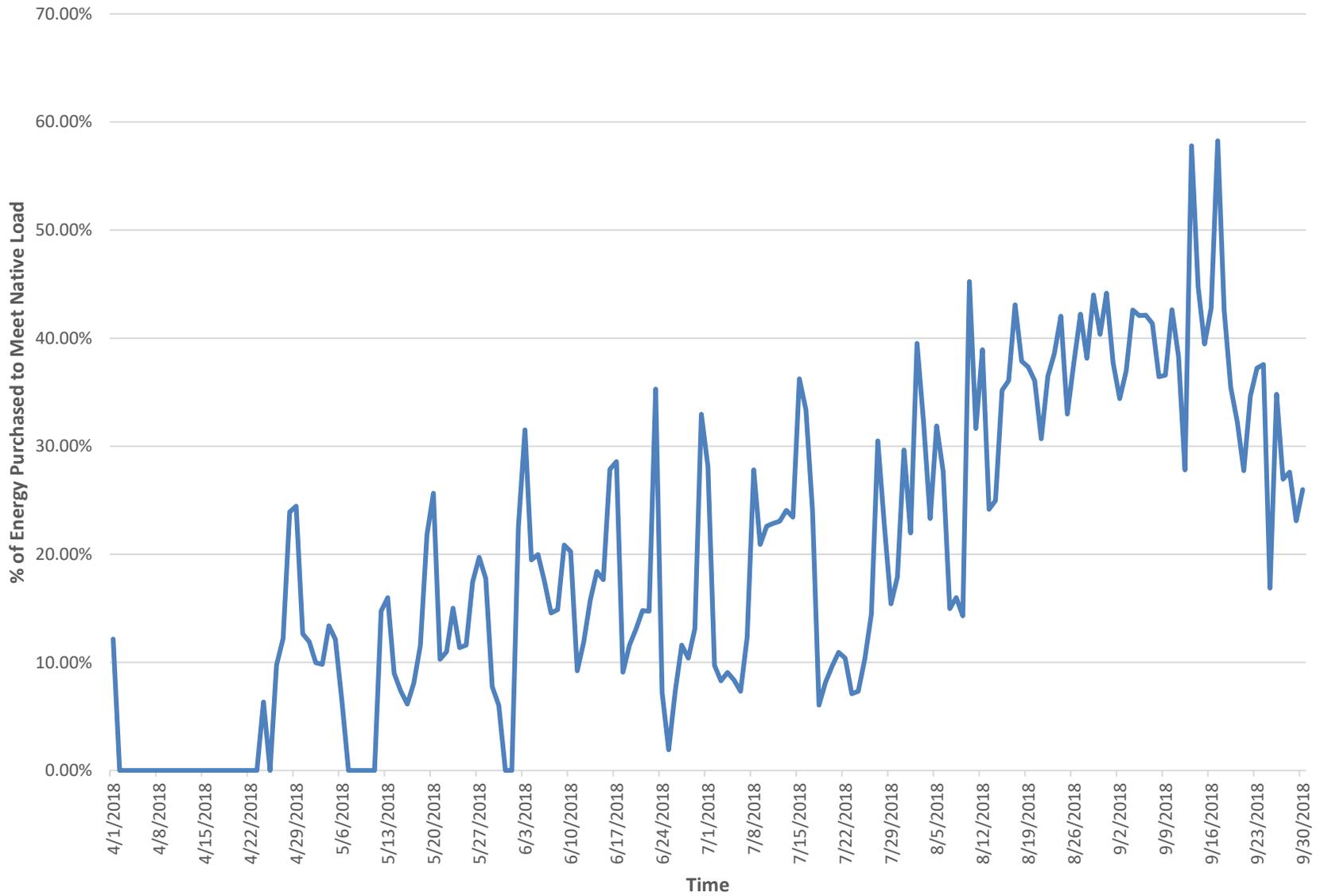
HEA - % of Energy Purchased to Meet Native Load vs Time (2018 Q2,Q3)



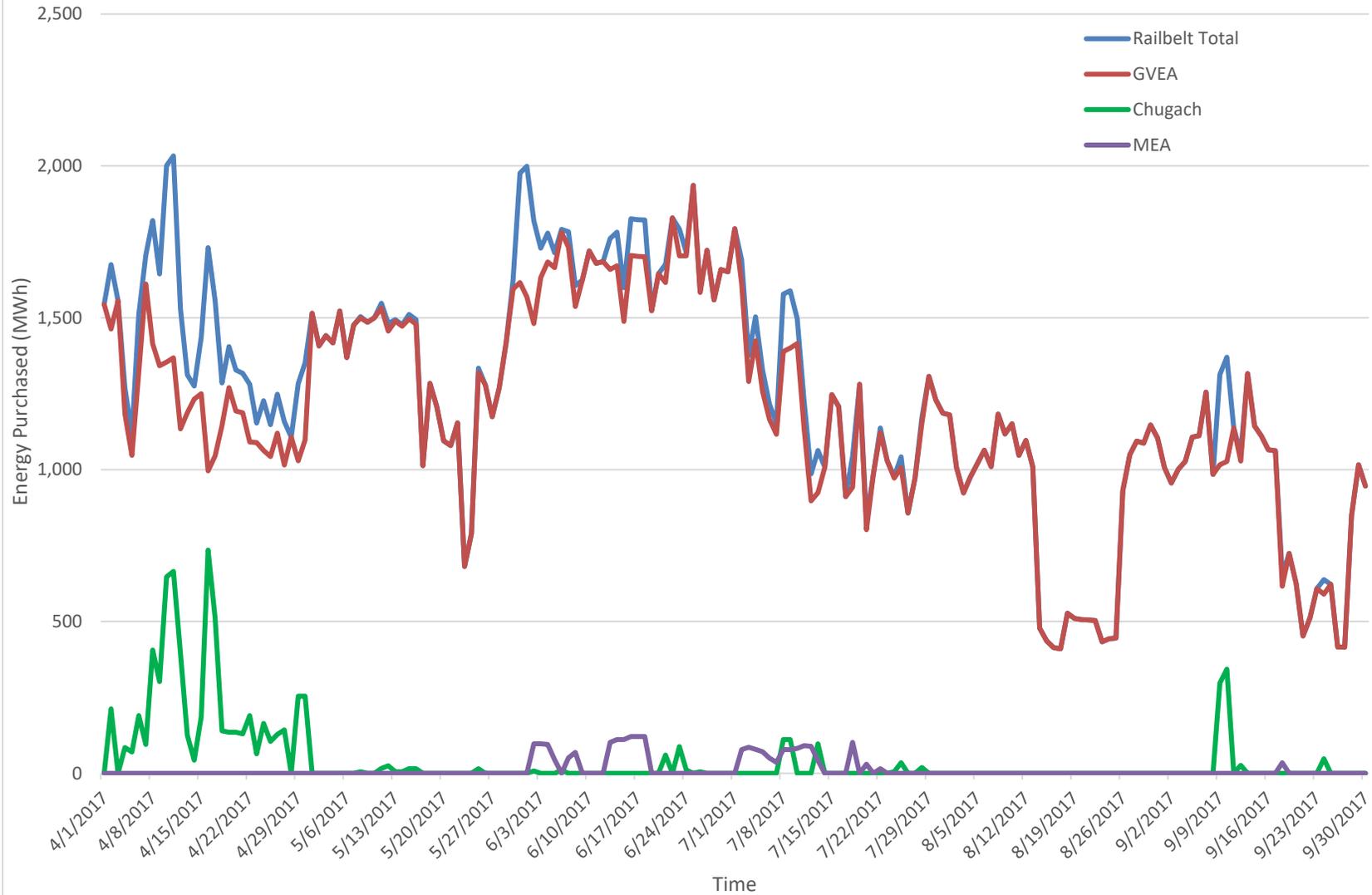
MEA - % of Energy Purchased to Meet Native Load vs Time (2017 Q2,Q3)



MEA - % of Energy Purchased to Meet Native Load vs Time (2018 Q2,Q3)



Railbelt Wide Total w/GVEA, MEA, & Chugach Individuality Graphed  
Total Energy Purchases (MWh) vs Time (2017 Q2,Q3)



Railbelt Wide Total w/GVEA, MEA, & Chugach Individuality Graphed  
Total Energy Purchases (MWh) vs Time (2018 Q2,Q3)

