

**Location**

Country: USA  
State: OKLAHOMA  
City: Oklahoma\_City  
Elevation: 1,302 ft.  
Bin Weather Data File Source: TMY2

**Indoor Conditions Input**

Indoor Space Dry-Bulb Temperature: 75.0 °F  
Indoor Space Relative Humidity: 50.0 %  
Actual Air: 0.073 lbs/cu.ft.

**Air Movement Input**

Makeup Airflow: 5,000 cfm  
Fan Static Pressure: 1.25 in.WC  
Fan Efficiency: 80.0 %  
Draw Through Fan Configuration (Motor Re-Heat)  
Belt Drive Fan Assembly  
Motor Efficiency: 94.0 %

**Cooling Data Input**

Avg. Cooling Efficiency: 0.98 kW/ton  
Free (Waste) Re-Heat (Dehumidification Mode): FALSE

**Heating Data Input**

Avg. Heating Efficiency: 1.00 COP  
Free (Waste) Re-Heat (Humidification Mode): FALSE  
Heating Energy Source: GAS

**Humidifier Data Input**

Humidification Type: GAS  
Humidifier Static Pressure Drop: 0.45 in.WC  
Pre-Heat Temperature Dry-Bulb (for Humidification): 65.0 °F

**Energy Recovery Data Input**

Energy Recovery Type: NONE  
Energy Recovery Static Pressure Drop: 0.00 in.WC  
Energy Recovery Effectiveness: 0.00 %

**Blended Utility Rate Input**

Electrical Rate: 0.10 \$/kWh  
Gas Rate: 3.00 \$/MCF

**Operating Schedule**

January: True  
February: True  
March: True  
April: True  
May: True  
June: True  
July: True  
August: True  
September: True  
October: True  
November: True  
December: True

Days Per Week: 7

12:00 AM to 01:00 AM: True  
01:00 AM to 02:00 AM: True  
02:00 AM to 03:00 AM: True  
03:00 AM to 04:00 AM: True  
04:00 AM to 05:00 AM: True  
05:00 AM to 06:00 AM: True  
06:00 AM to 07:00 AM: True  
07:00 AM to 08:00 AM: True  
08:00 AM to 09:00 AM: True  
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01:00 PM to 02:00 PM: True  
02:00 PM to 03:00 PM: True  
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11:00 PM to 12:00 PM: True

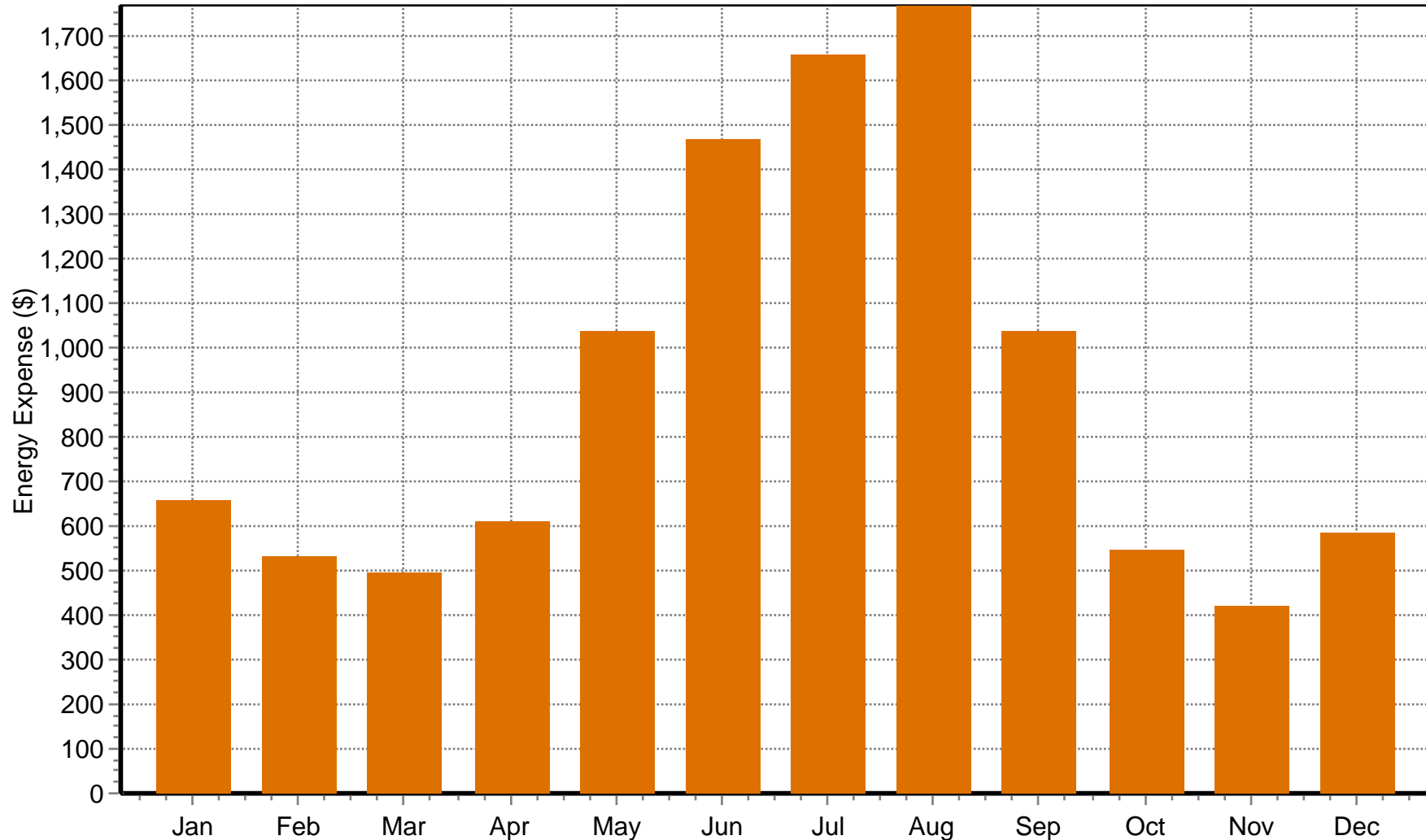
*Note: Output values are estimates only and actual results may vary.*

<b><u>MakeUpAir Energy Expense Detail</u></b>	<b><u>JAN</u></b>	<b><u>FEB</u></b>	<b><u>MAR</u></b>	<b><u>APR</u></b>	<b><u>MAY</u></b>	<b><u>JUN</u></b>	<b><u>JUL</u></b>	<b><u>AUG</u></b>	<b><u>SEP</u></b>	<b><u>OCT</u></b>	<b><u>NOV</u></b>	<b><u>DEC</u></b>	<b><u>TOTAL</u></b>
Total Energy Expense:	\$659	\$532	\$497	\$608	\$1,035	\$1,470	\$1,659	\$1,770	\$1,038	\$548	\$424	\$587	\$10,827
Total Electric Expense:	\$133	\$128	\$196	\$374	\$827	\$1,253	\$1,430	\$1,540	\$839	\$351	\$134	\$168	\$7,373
Total Gas Expense:	\$526	\$404	\$302	\$235	\$208	\$217	\$229	\$229	\$199	\$196	\$290	\$419	\$3,454
Air Moving Electric Expense:	\$104	\$94	\$104	\$101	\$104	\$101	\$104	\$104	\$101	\$104	\$101	\$104	\$1,226
Cooling Electric Expense:	\$29	\$34	\$92	\$273	\$723	\$1,153	\$1,326	\$1,436	\$739	\$247	\$33	\$64	\$6,149
Heating Gas Expense:	\$478	\$367	\$272	\$214	\$201	\$216	\$229	\$229	\$194	\$178	\$263	\$378	\$3,219
Humidification Gas Expense:	\$47	\$37	\$30	\$20	\$7	\$1	\$1	\$0	\$5	\$18	\$27	\$41	\$234
<b><u>MakeUpAir Electric Usage Detail</u></b>	<b><u>JAN</u></b>	<b><u>FEB</u></b>	<b><u>MAR</u></b>	<b><u>APR</u></b>	<b><u>MAY</u></b>	<b><u>JUN</u></b>	<b><u>JUL</u></b>	<b><u>AUG</u></b>	<b><u>SEP</u></b>	<b><u>OCT</u></b>	<b><u>NOV</u></b>	<b><u>DEC</u></b>	<b><u>TOTAL</u></b>
Total Electric Usage (kWh):	1,329	1,281	1,955	3,738	8,271	12,531	14,298	15,401	8,395	3,514	1,335	1,682	73,730
Air Moving Electric Usage (kWh):	1,039	939	1,039	1,006	1,039	1,006	1,039	1,039	1,006	1,039	1,006	1,039	12,236
Cooling Electric Usage (kWh):	290	342	916	2,733	7,232	11,525	13,259	14,362	7,389	2,475	330	643	61,496
Heating Electric Usage (kWh):	0	0	0	0	0	0	0	0	0	0	0	0	0
Humidification Electric Usage (kWh):	0	0	0	0	0	0	0	0	0	0	0	0	0
<b><u>MakeUpAir Gas Usage Detail</u></b>	<b><u>JAN</u></b>	<b><u>FEB</u></b>	<b><u>MAR</u></b>	<b><u>APR</u></b>	<b><u>MAY</u></b>	<b><u>JUN</u></b>	<b><u>JUL</u></b>	<b><u>AUG</u></b>	<b><u>SEP</u></b>	<b><u>OCT</u></b>	<b><u>NOV</u></b>	<b><u>DEC</u></b>	<b><u>TOTAL</u></b>
Total Gas Usage (MCF):	175	135	101	78	69	72	76	76	66	65	97	140	1,150
Heating Gas Usage (MCF):	159	122	91	71	67	72	76	76	65	59	88	126	1,072
Humidification Gas Usage (MCF):	16	12	10	7	2	0	0	0	2	6	9	14	78
<b><u>MakeUpAir Cooling Load Detail</u></b>	<b><u>JAN</u></b>	<b><u>FEB</u></b>	<b><u>MAR</u></b>	<b><u>APR</u></b>	<b><u>MAY</u></b>	<b><u>JUN</u></b>	<b><u>JUL</u></b>	<b><u>AUG</u></b>	<b><u>SEP</u></b>	<b><u>OCT</u></b>	<b><u>NOV</u></b>	<b><u>DEC</u></b>	<b><u>TOTAL</u></b>
Total Cooling Load (mbh):	3,546	4,192	11,218	33,460	88,553	141,123	162,353	175,862	90,478	30,305	4,036	7,869	752,995
Motor Heat Load (mbh):	3,546	3,203	3,546	3,431	3,546	3,431	3,546	3,546	3,431	3,546	3,431	3,546	41,749
Net Cooling Load (mbh):	0	989	7,672	30,029	85,008	137,692	158,808	172,317	87,047	26,760	604	4,323	711,249
<b><u>MakeUpAir Humidification Load Detail</u></b>	<b><u>JAN</u></b>	<b><u>FEB</u></b>	<b><u>MAR</u></b>	<b><u>APR</u></b>	<b><u>MAY</u></b>	<b><u>JUN</u></b>	<b><u>JUL</u></b>	<b><u>AUG</u></b>	<b><u>SEP</u></b>	<b><u>OCT</u></b>	<b><u>NOV</u></b>	<b><u>DEC</u></b>	<b><u>TOTAL</u></b>
Total Humidification Load (lbs):	111,538	85,902	71,557	48,098	16,697	3,135	1,313	358	11,666	43,464	62,947	95,324	551,999
<b><u>MakeUpAir Heating Load Detail</u></b>	<b><u>JAN</u></b>	<b><u>FEB</u></b>	<b><u>MAR</u></b>	<b><u>APR</u></b>	<b><u>MAY</u></b>	<b><u>JUN</u></b>	<b><u>JUL</u></b>	<b><u>AUG</u></b>	<b><u>SEP</u></b>	<b><u>OCT</u></b>	<b><u>NOV</u></b>	<b><u>DEC</u></b>	<b><u>TOTAL</u></b>
Total Heating Load (mbh):	162,998	125,609	94,055	74,790	70,571	75,377	79,828	79,972	68,085	62,800	91,206	129,576	1,114,867
Total Pre-Heating Load (mbh):	131,552	95,483	56,969	32,497	8,569	2,424	465	33	4,916	20,631	60,022	94,521	508,082
Motor Pre-Heating Load (mbh):	0	0	0	0	0	0	0	0	0	0	0	0	0
Heater Pre-Heating Load (mbh):	131,552	95,483	56,969	32,497	8,569	2,424	465	33	4,916	20,631	60,022	94,521	508,082
Total Re-Heating Load (mbh):	31,446	30,126	37,085	42,293	62,002	72,953	79,363	79,939	63,170	42,169	31,184	35,055	606,785
Motor Re-Heating Load (mbh):	3,546	3,203	3,546	3,431	3,546	3,431	3,546	3,546	3,431	3,546	3,431	3,546	41,749
Heater Re-Heating Load (mbh):	27,901	26,923	33,539	38,862	58,456	69,521	75,817	76,393	59,738	38,623	27,753	31,510	565,036

Note: Output values are estimates only and actual results may vary.

## MakeUpAir TOTAL Energy Expense

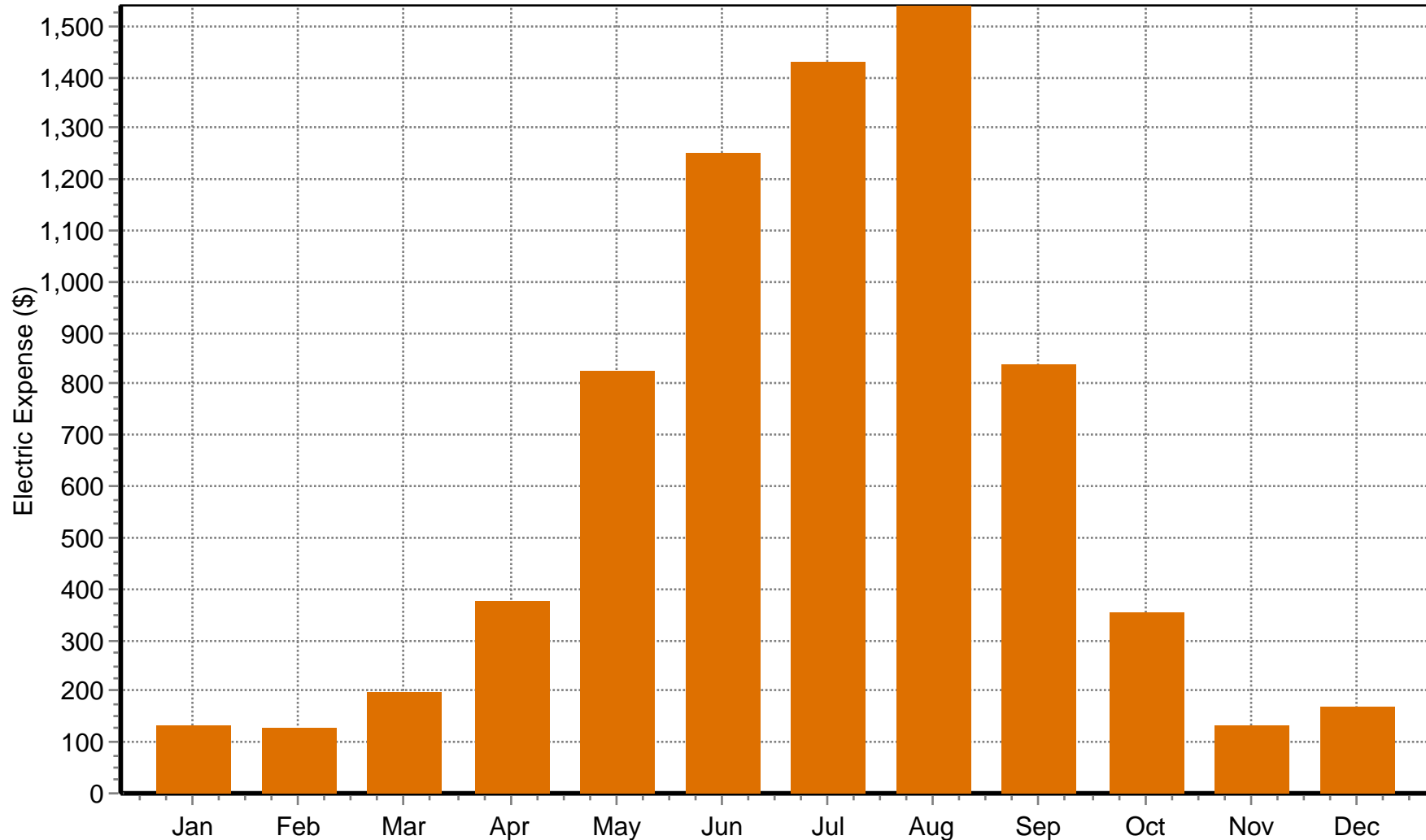
MakeUpAir TOTAL Energy Expense by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Electric Expense

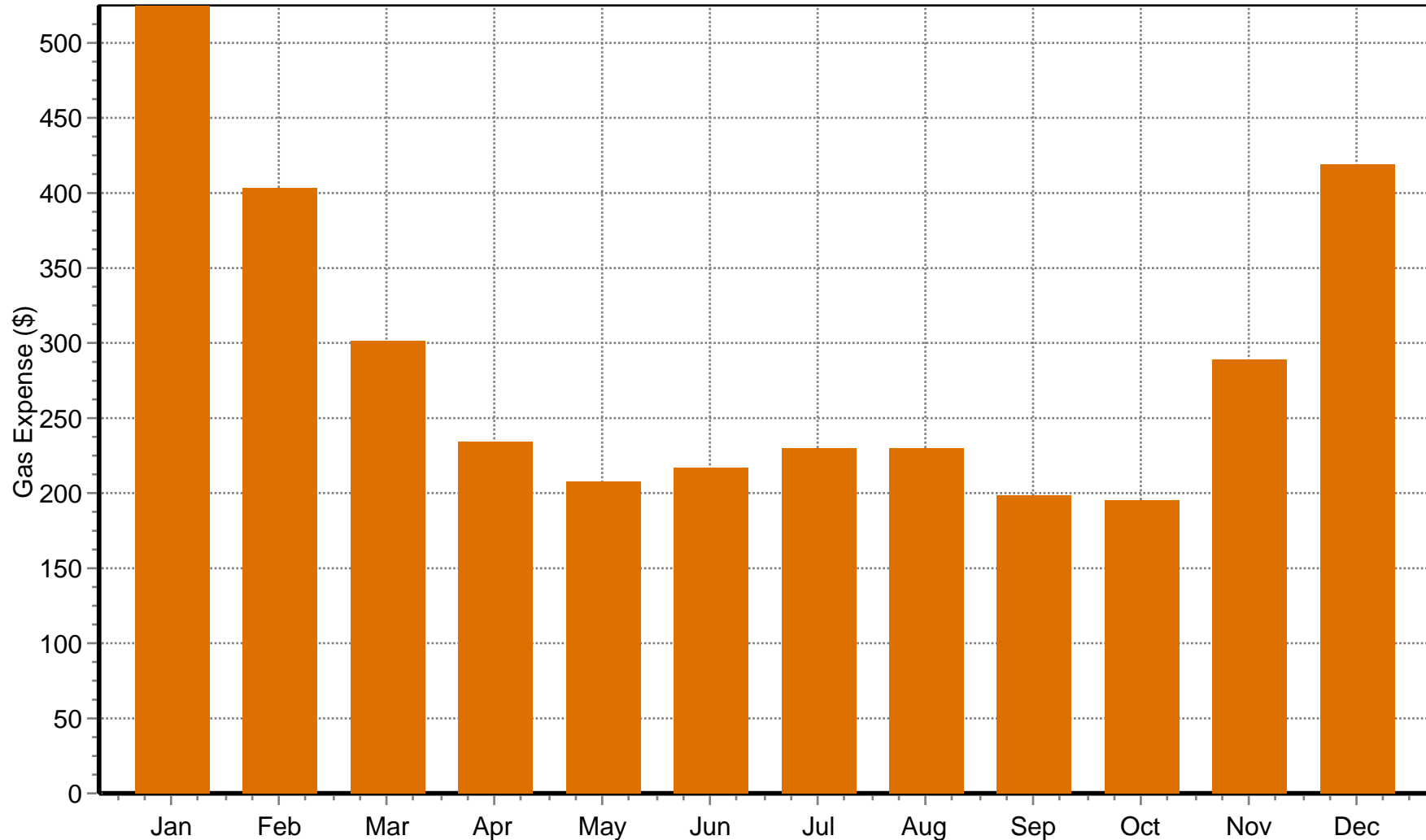
MakeUpAir Electric Expense by Month



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## MakeUpAir Gas Expense

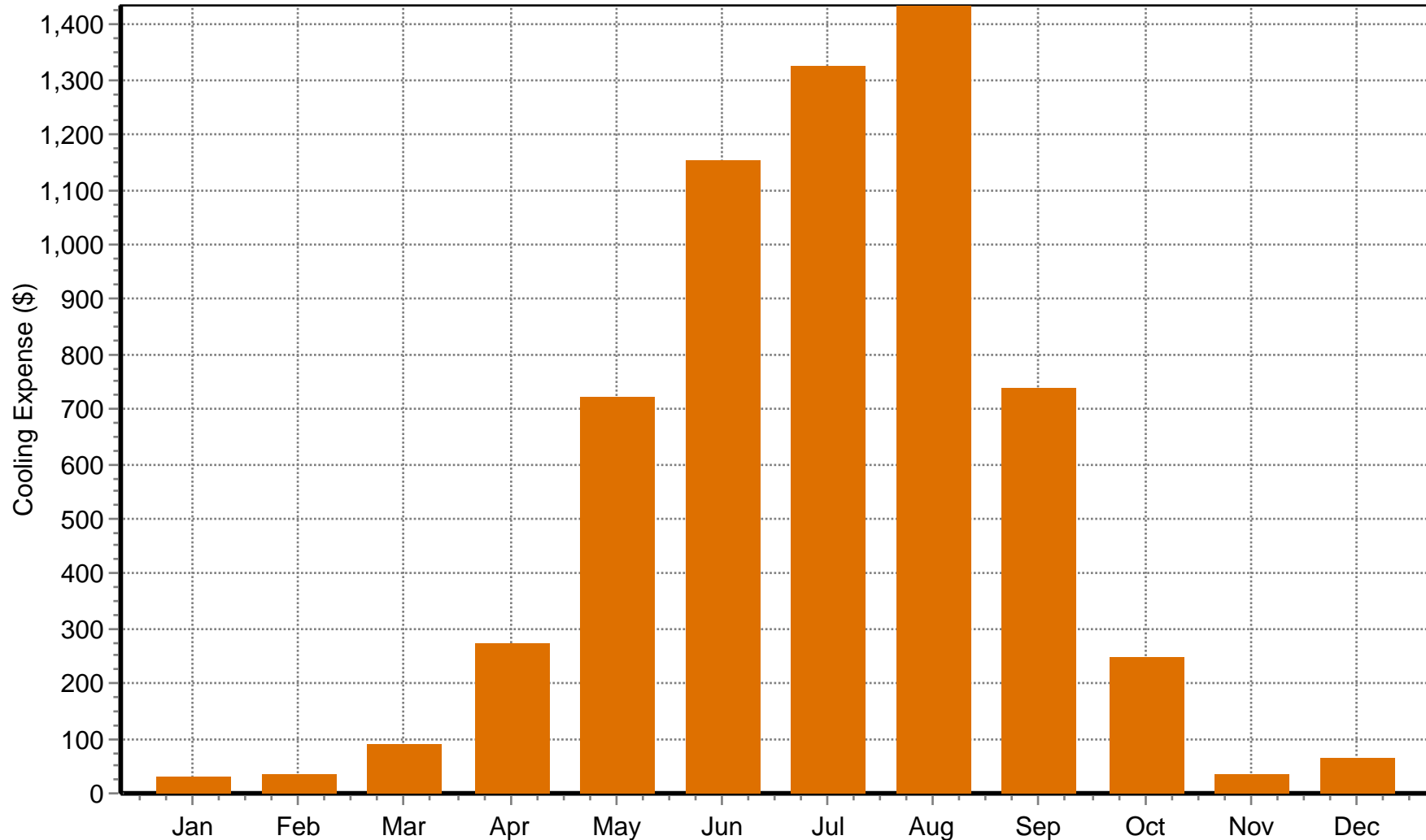
MakeUpAir Gas Expense by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Cooling Expense

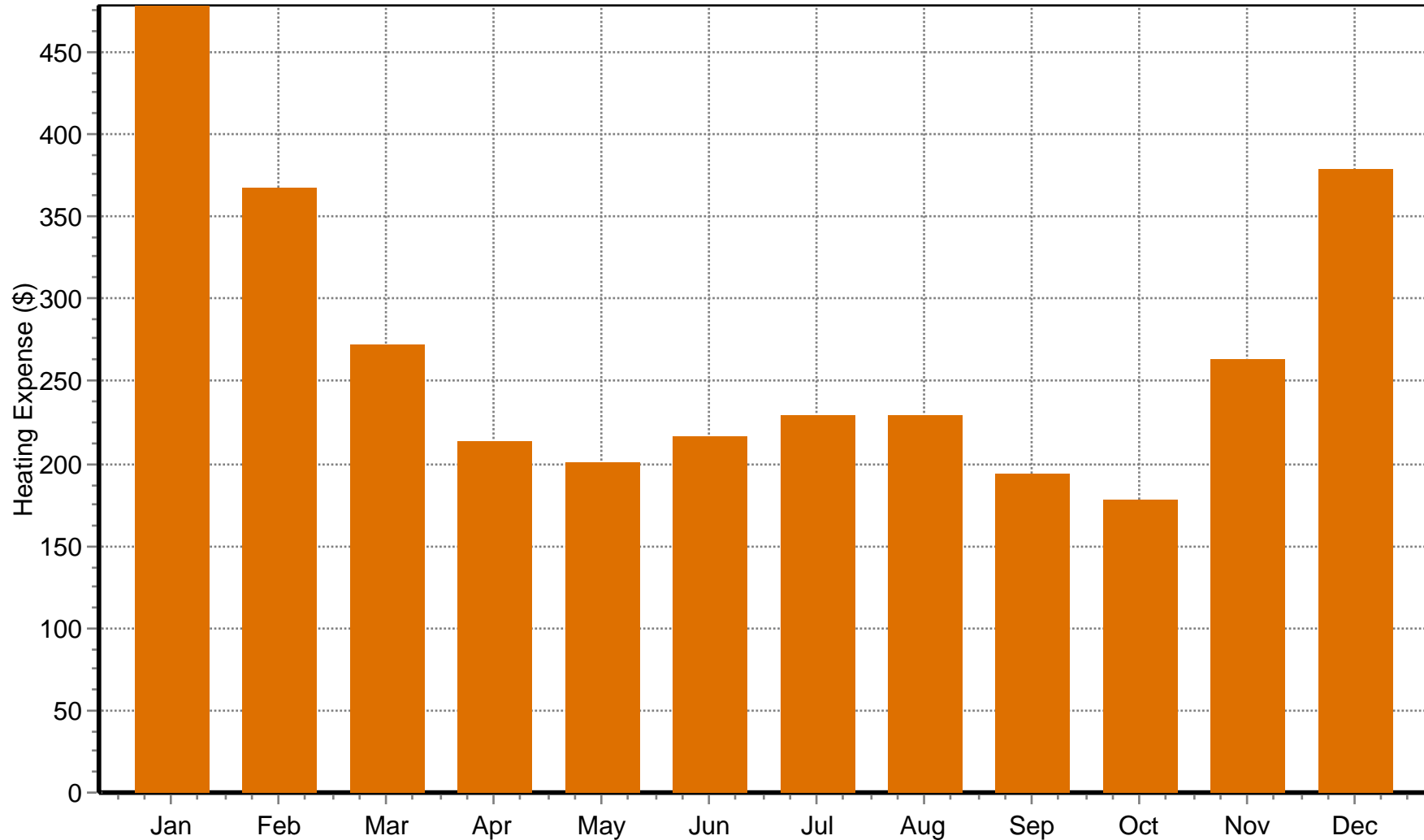
MakeUpAir Cooling Expense by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Heating Expense

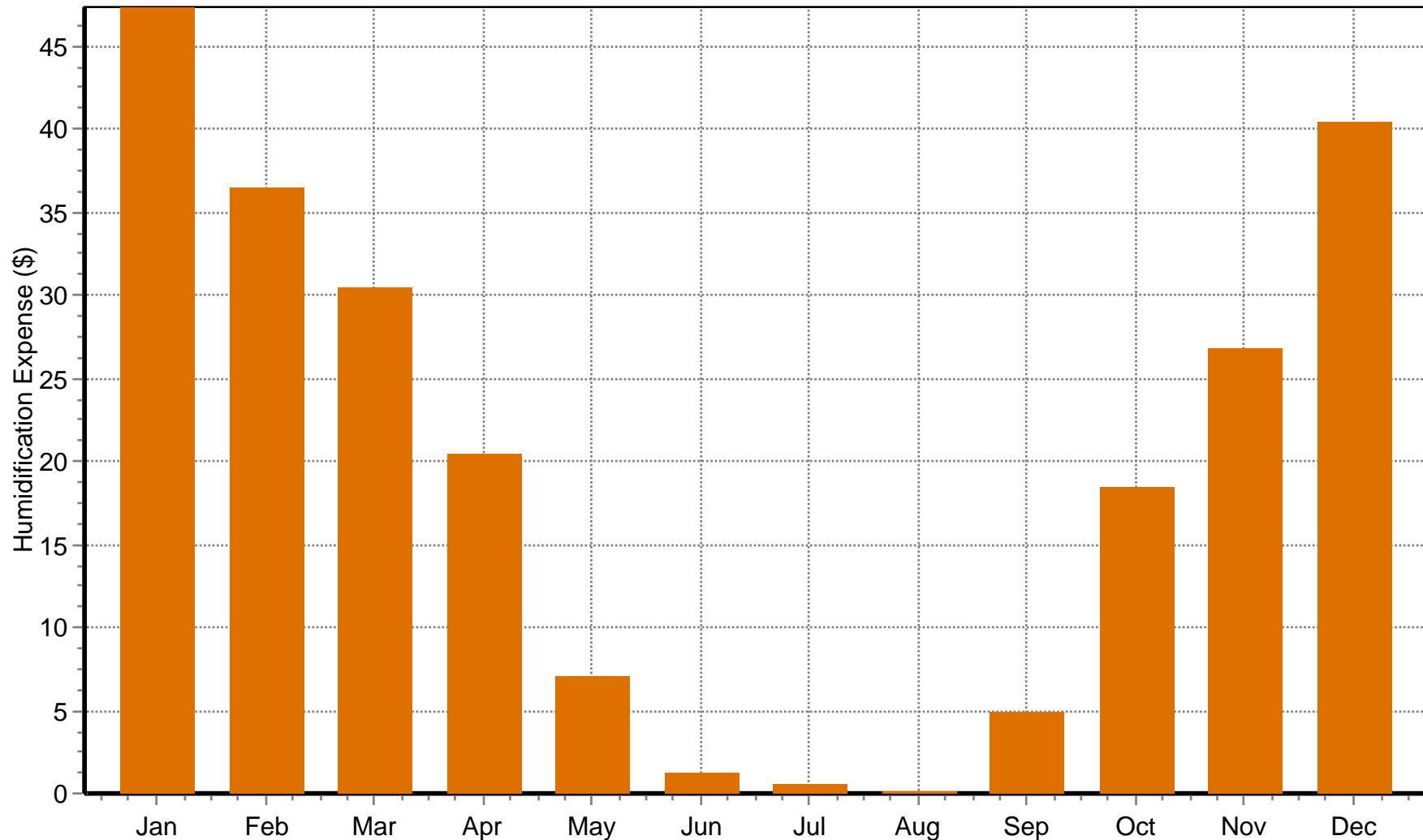
MakeUpAir Heating Expense by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Humidification Expense

MakeUpAir Humidification Expense by Month

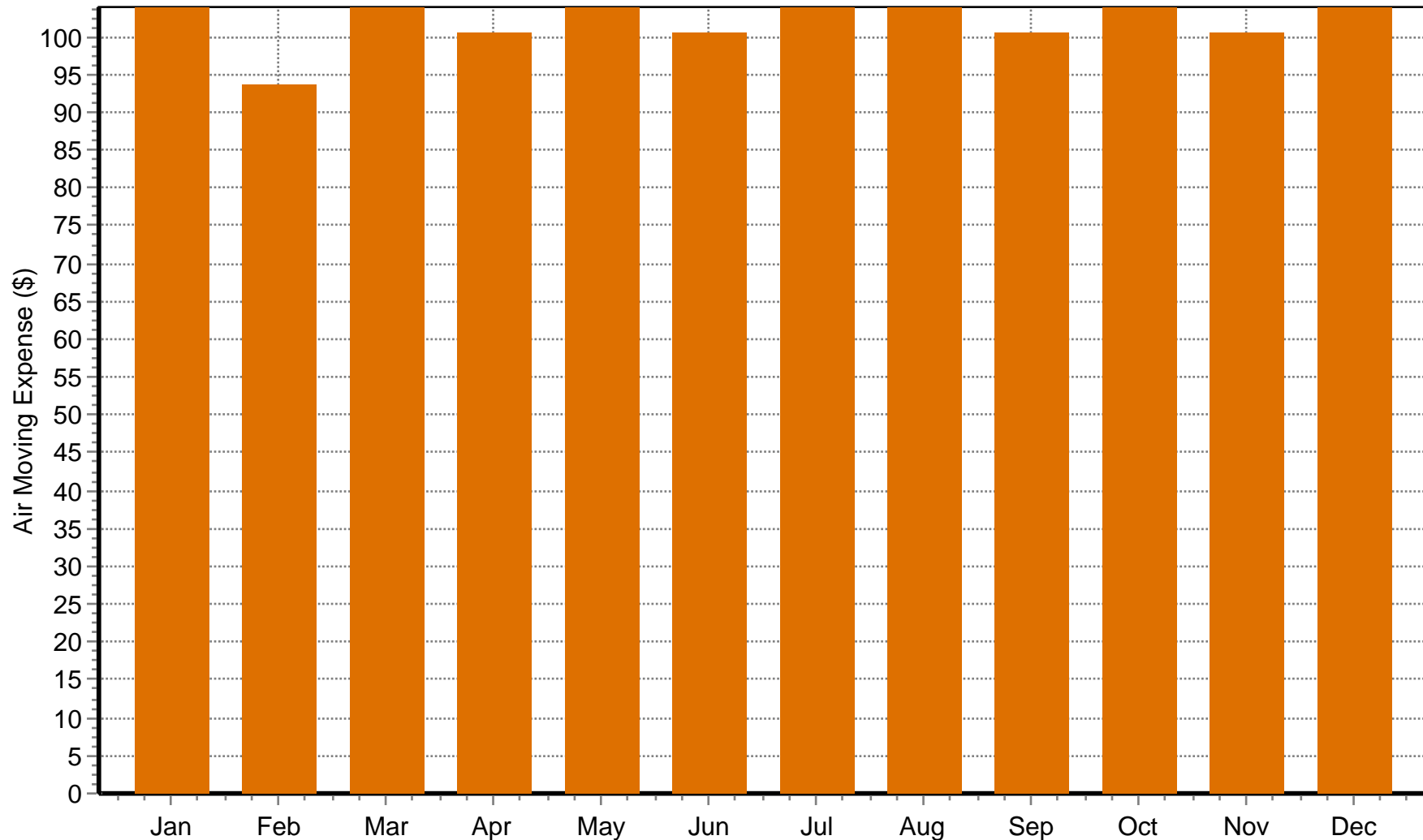


Note: Output values are estimates only and actual results may vary.



## MakeUpAir Air Moving Expense

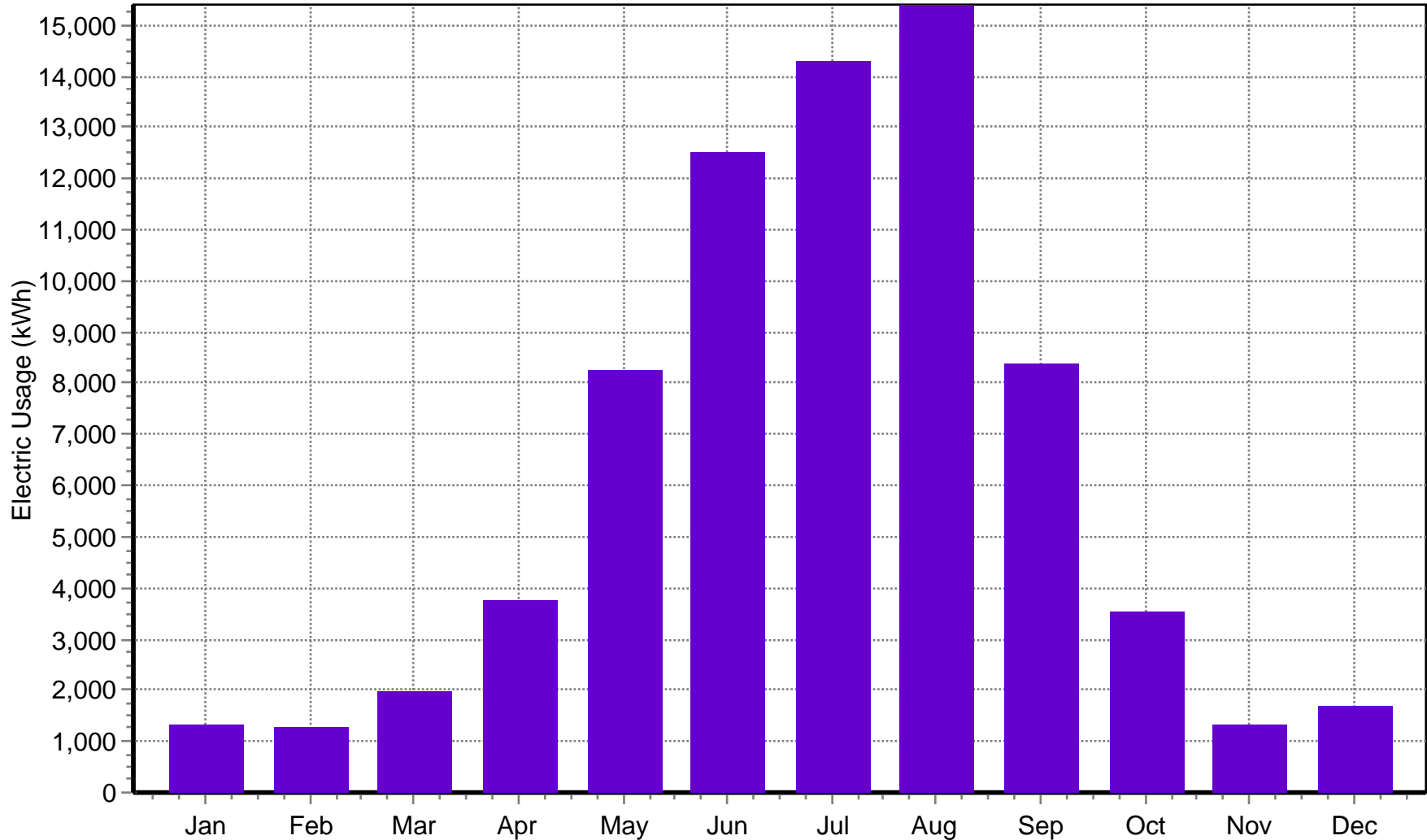
MakeUpAir Air Moving Expense by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir TOTAL Electric Usage

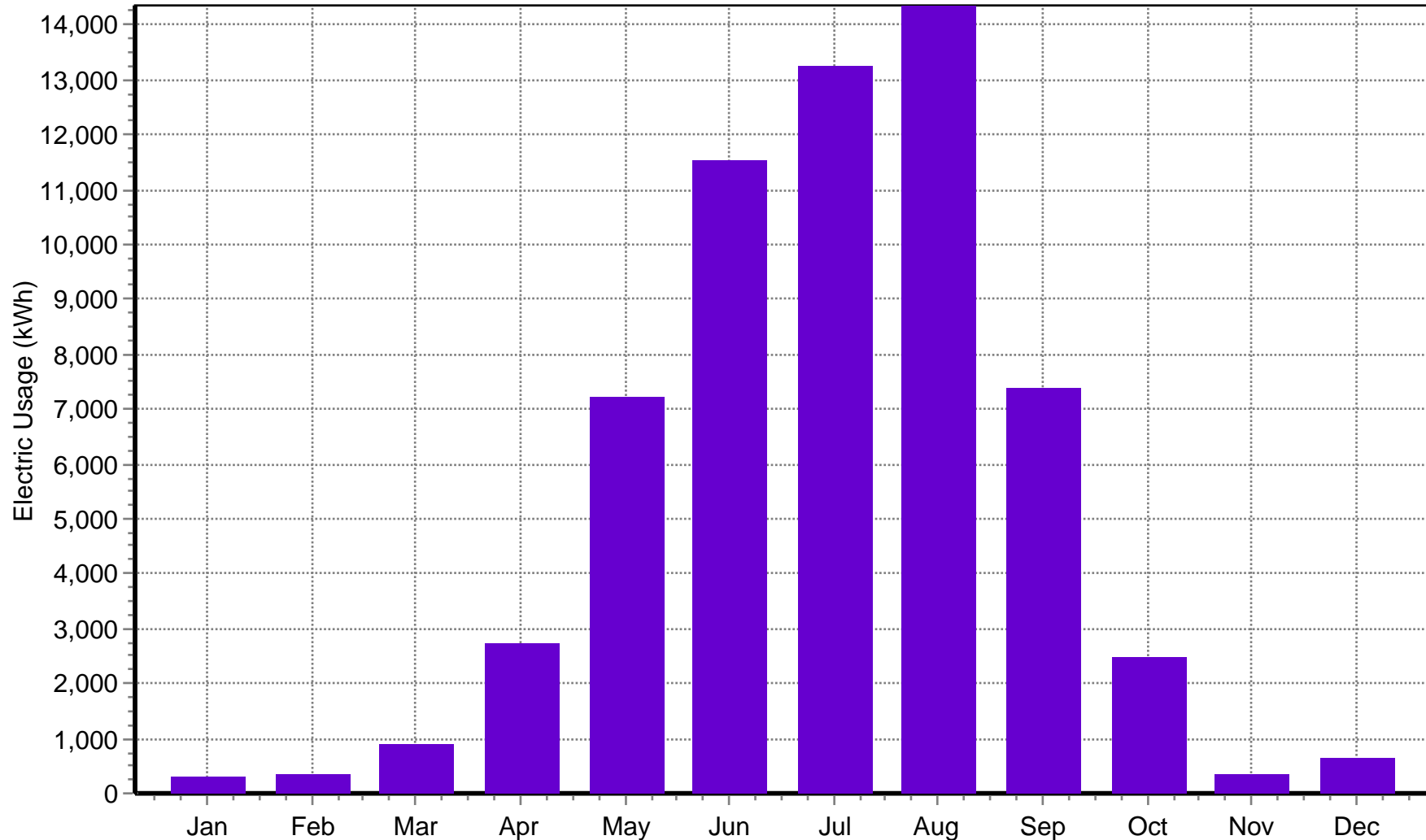
MakeUpAir TOTAL Electric Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Cooling Electric Usage

MakeUpAir Cooling Electric Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Heating Electric Usage

MakeUpAir Heating Electric Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Humidifying Electric Usage

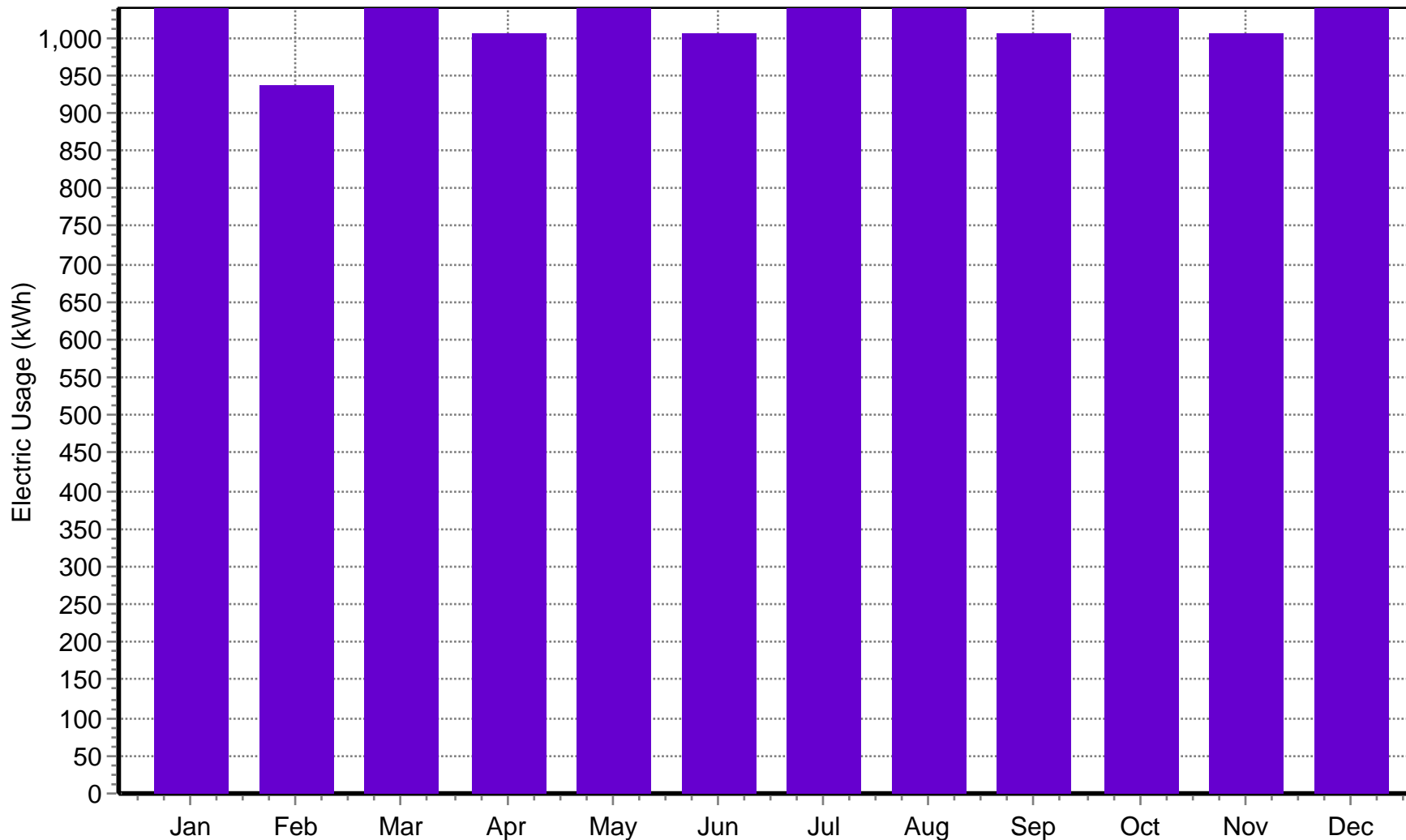
MakeUpAir Humidifying Electric Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Air Moving Electric Usage

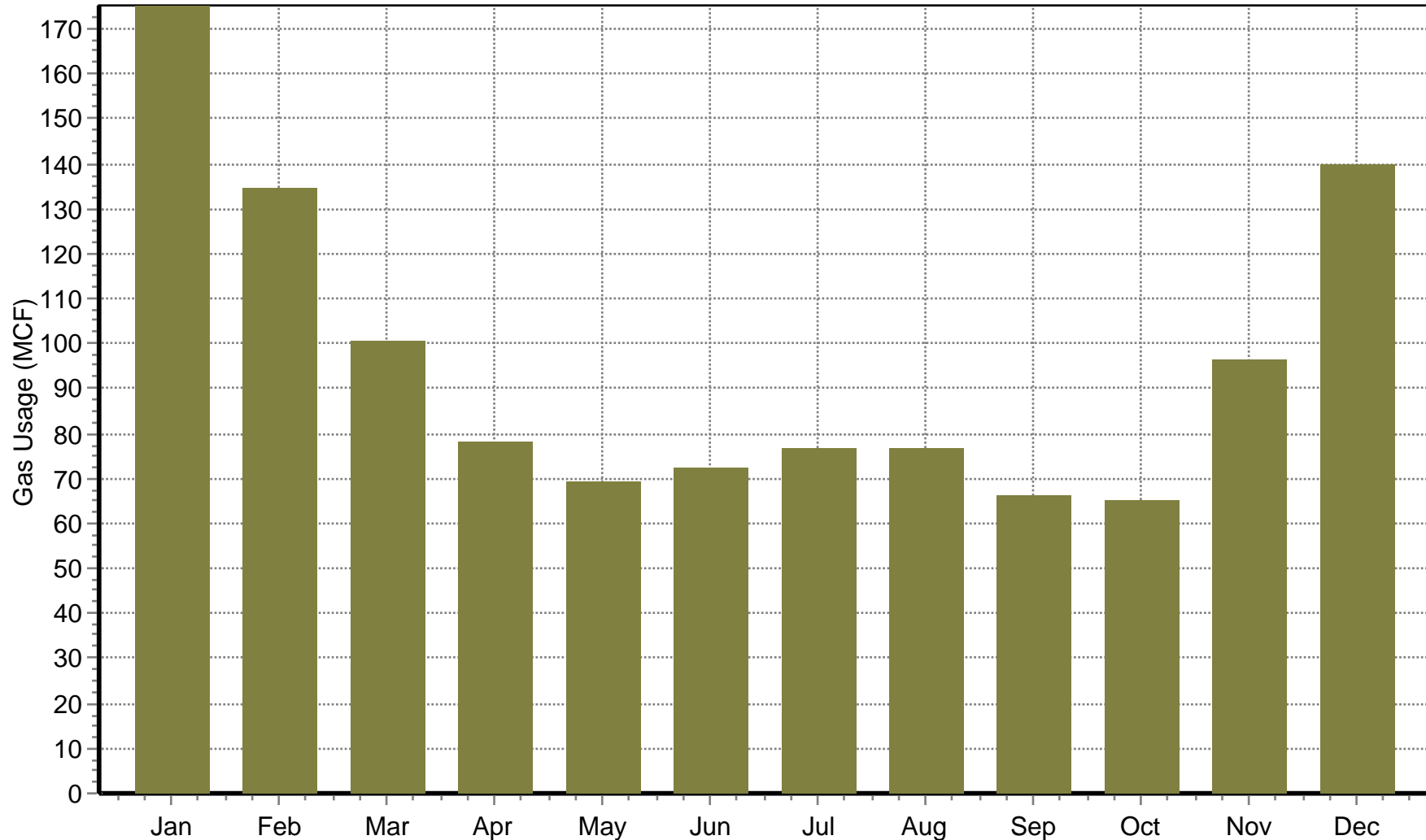
MakeUpAir Air Moving Electric Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Total Gas Usage

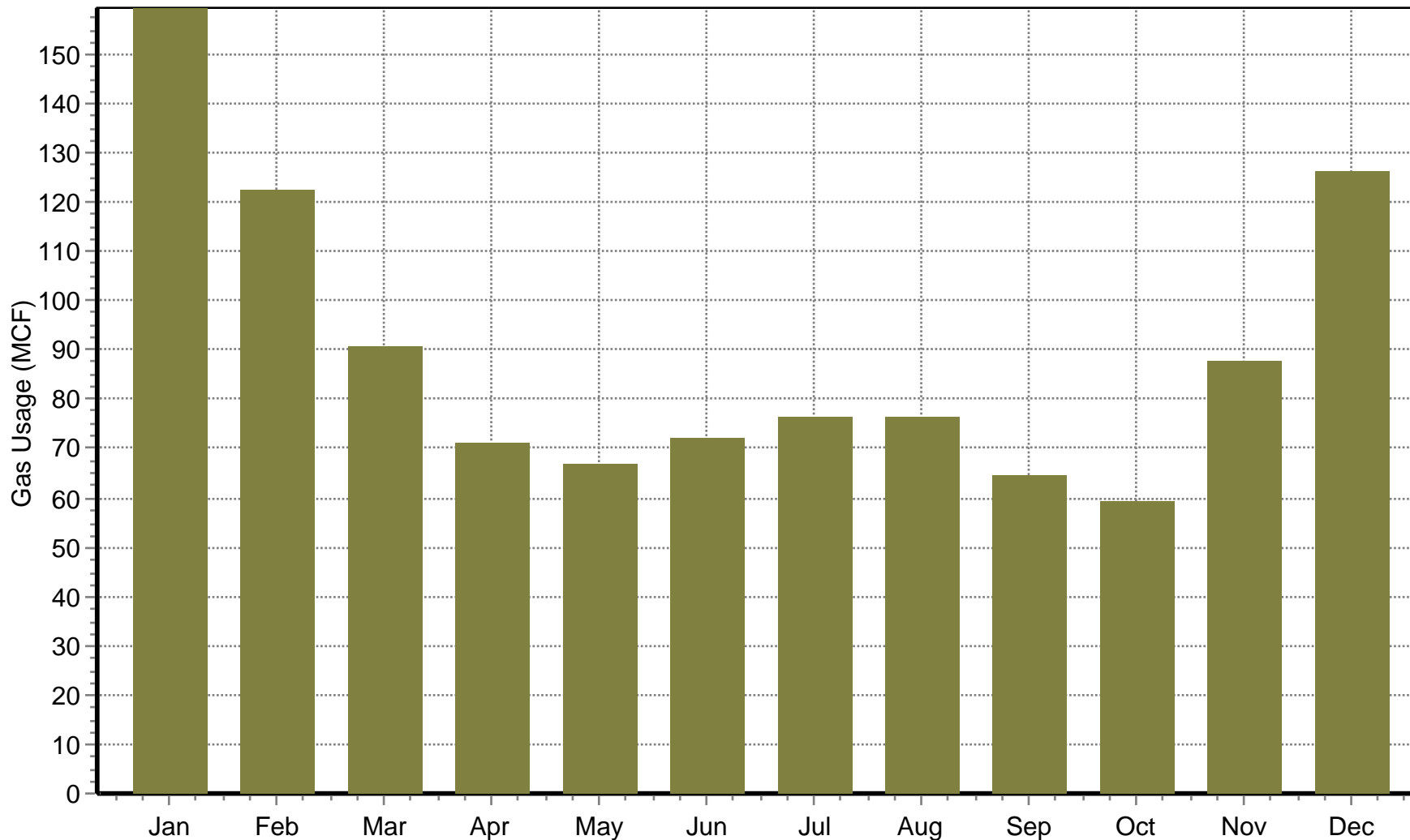
MakeUpAir Total Gas Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Heating Gas Usage

MakeUpAir Heating Gas Usage by Month

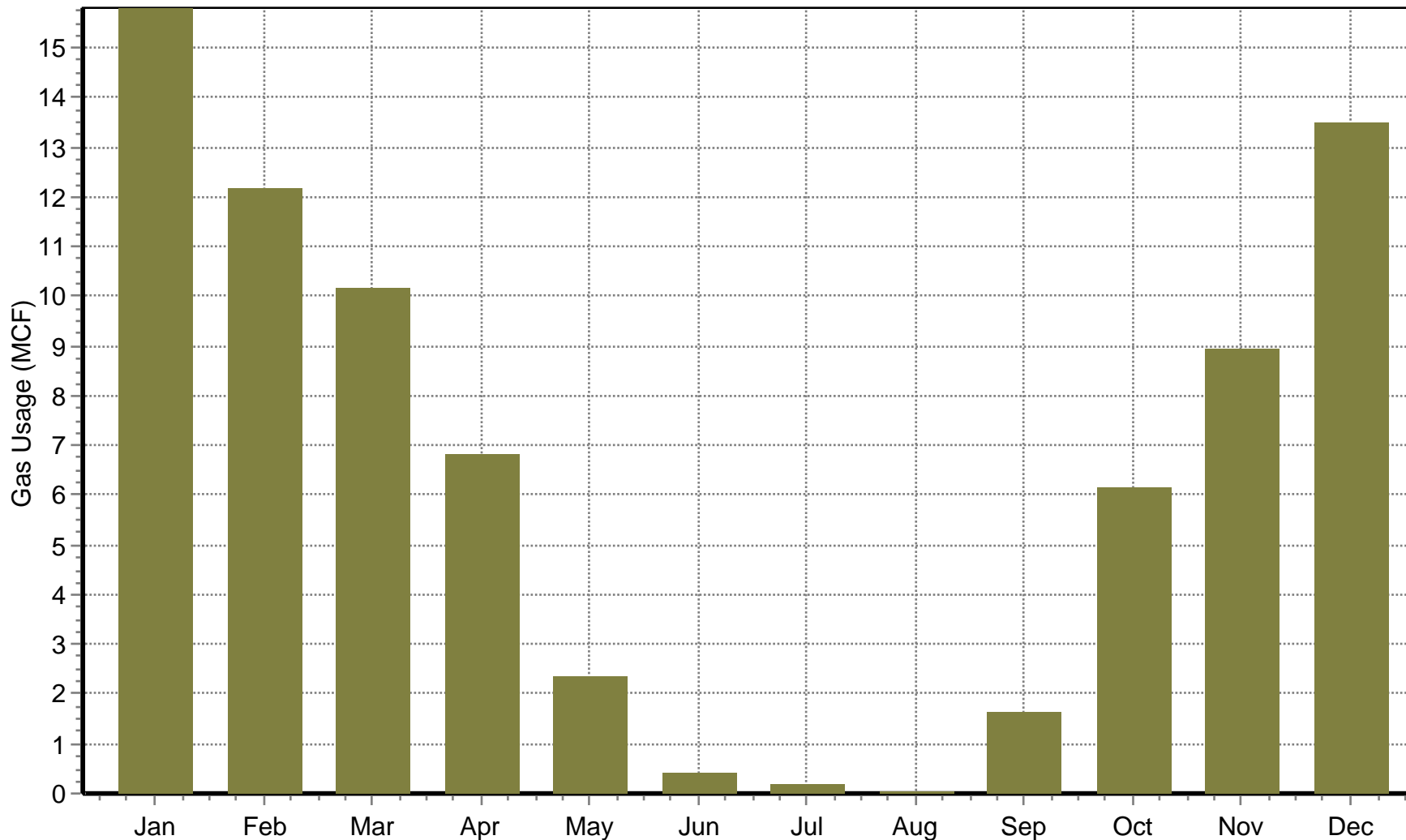


Note: Output values are estimates only and actual results may vary.



## MakeUpAir Humidifying Gas Usage

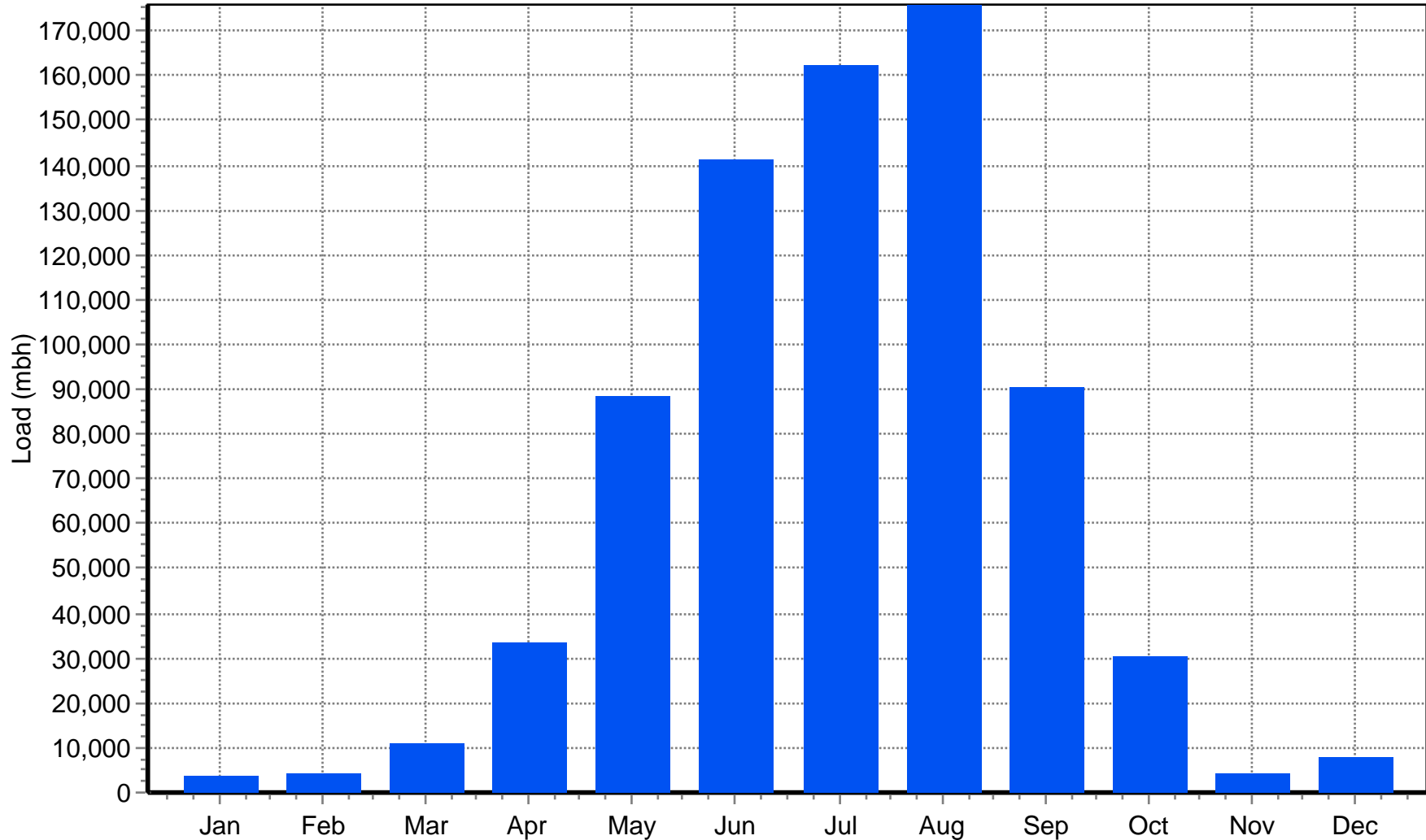
MakeUpAir Humidifying Gas Usage by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Cooling Total Load

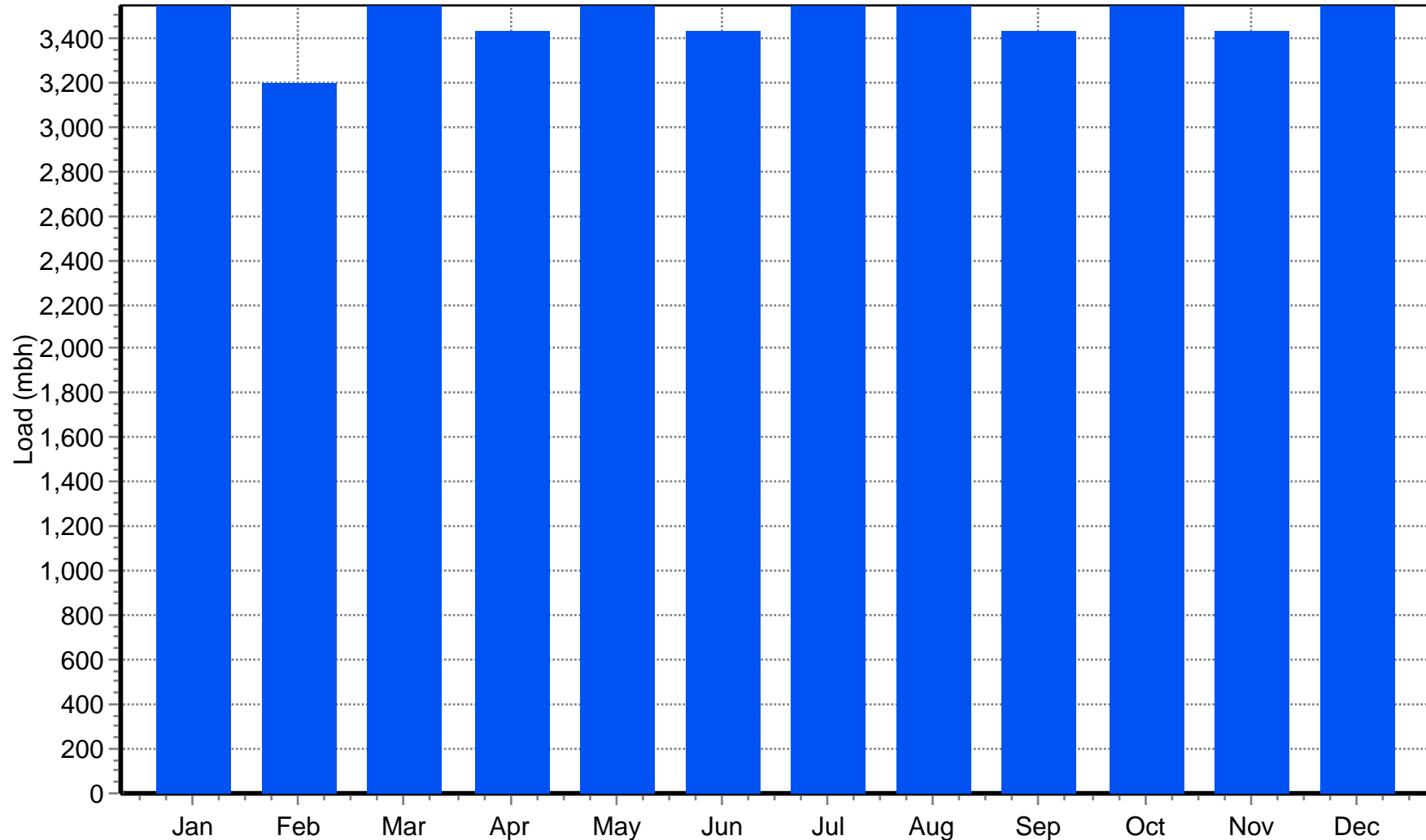
MakeUpAir Cooling Total Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Motor Heat Load

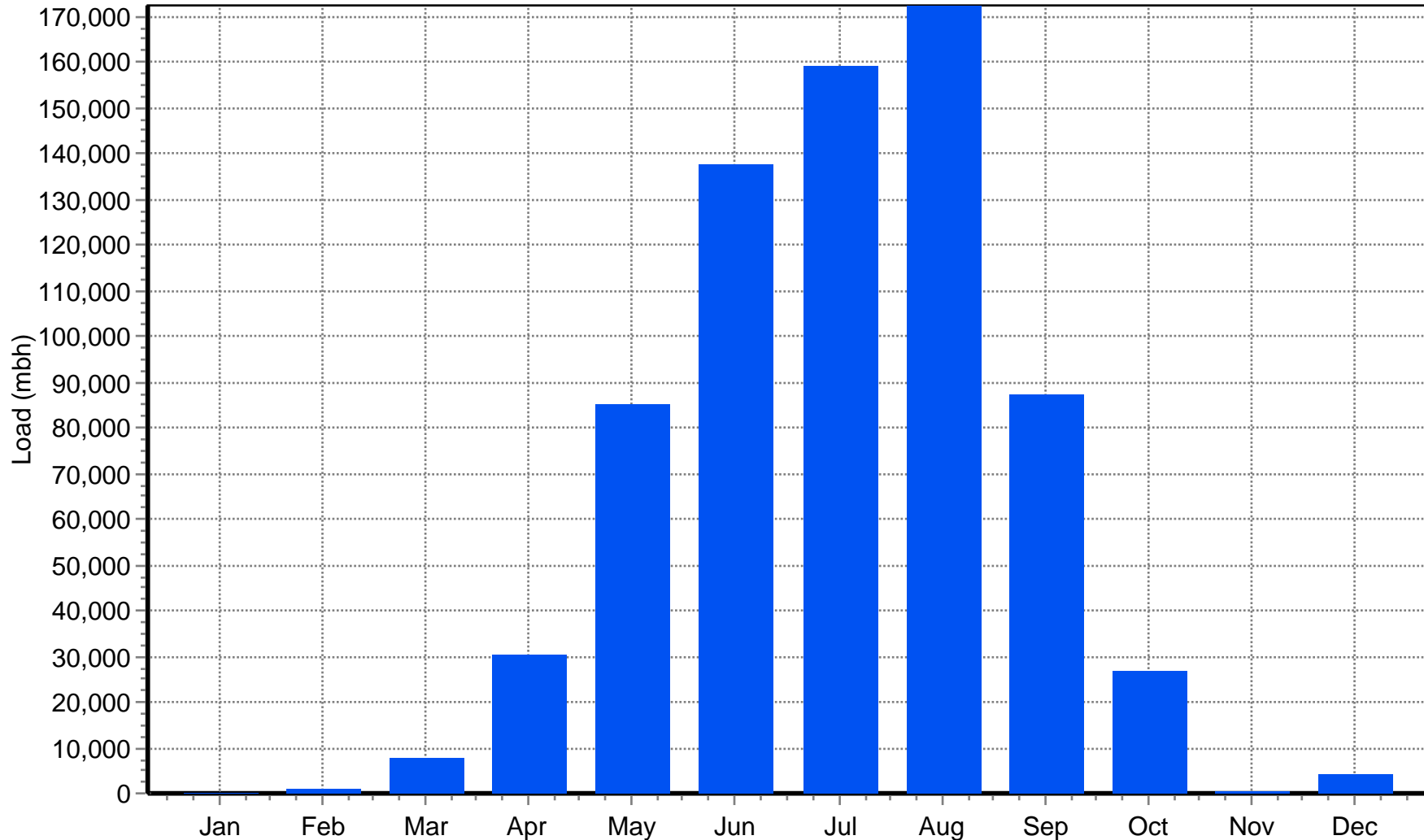
MakeUpAir Motor Heat Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Net Cooling Load

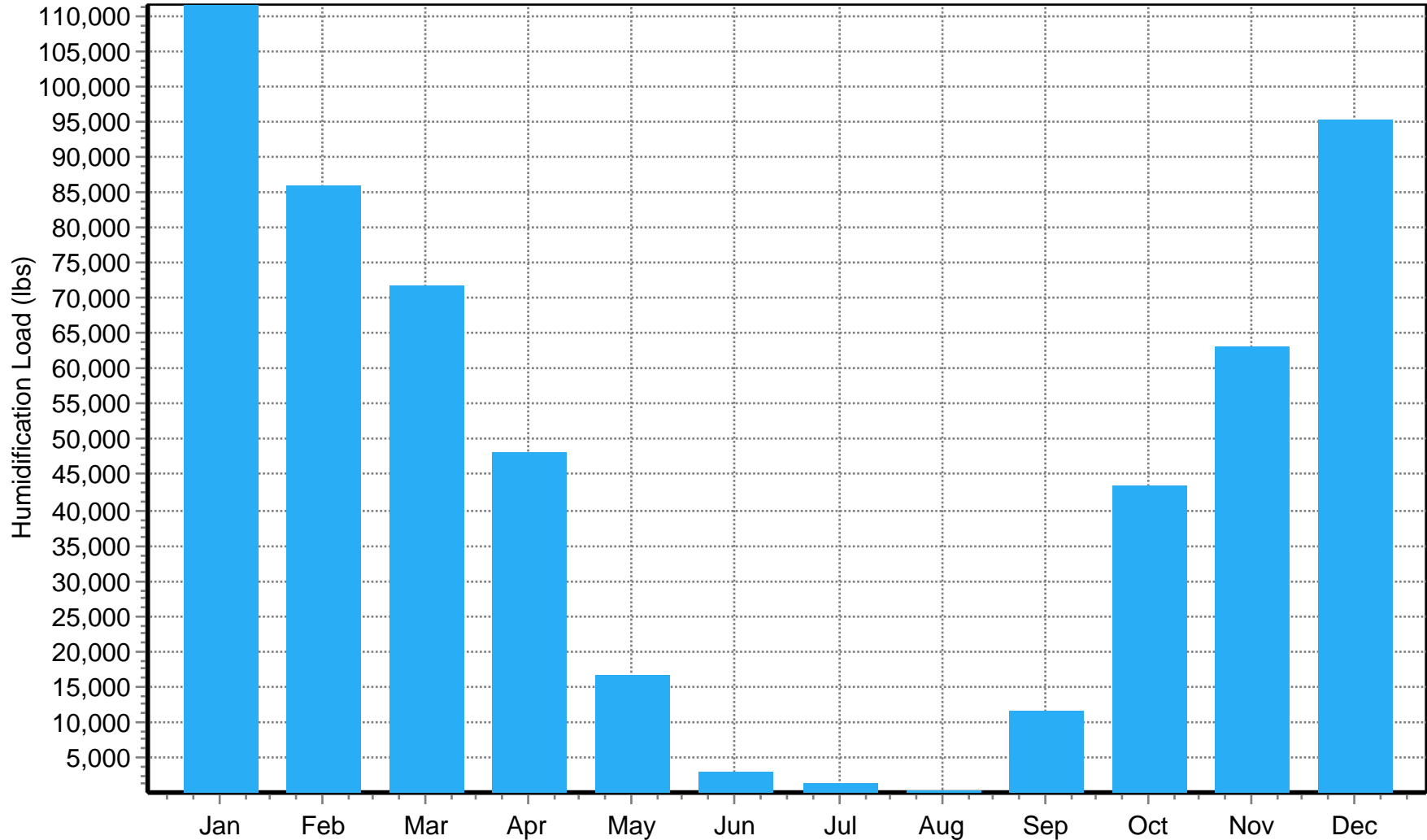
MakeUpAir Net Cooling Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Humidification Load

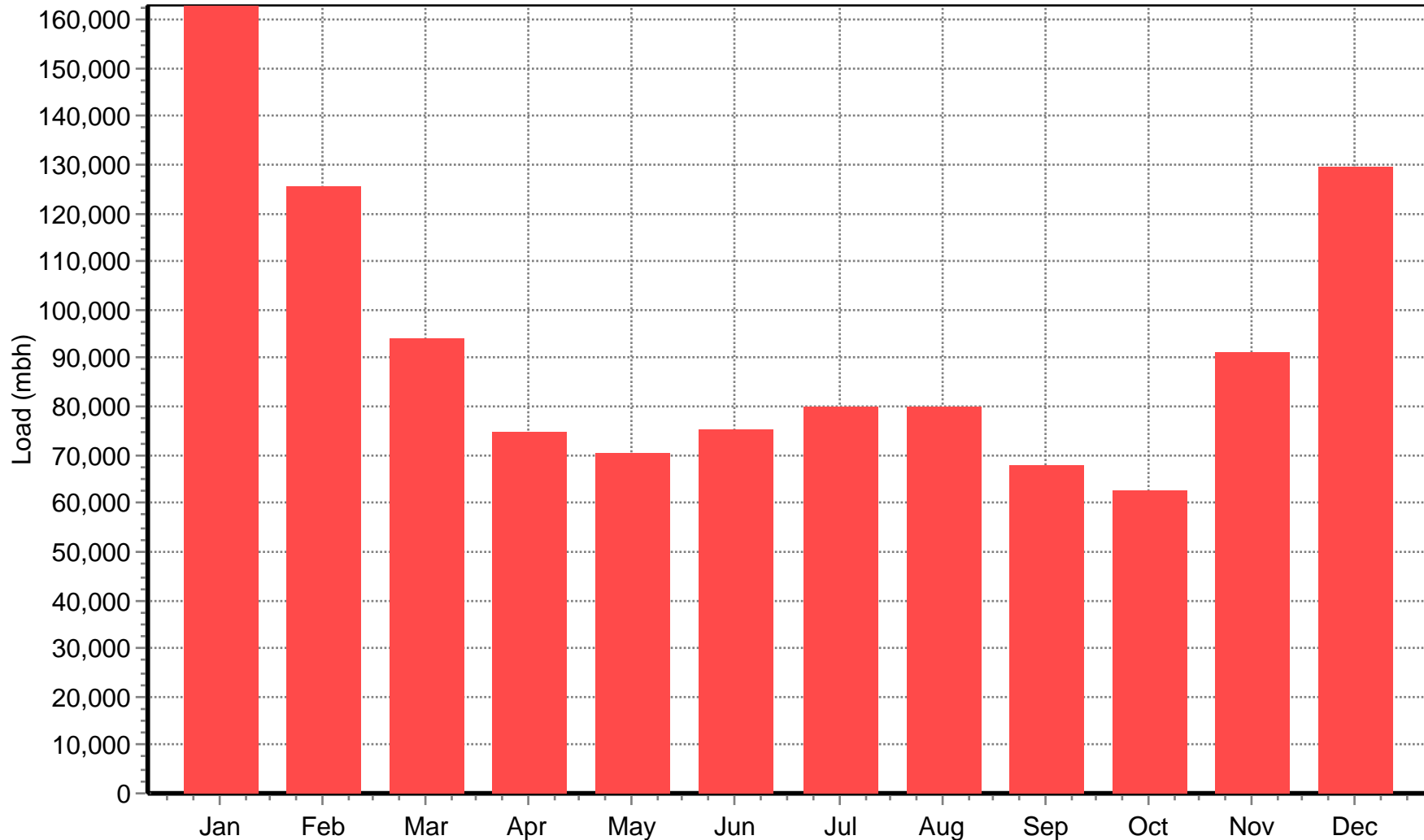
MakeUpAir Humidification Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Total Heating Load

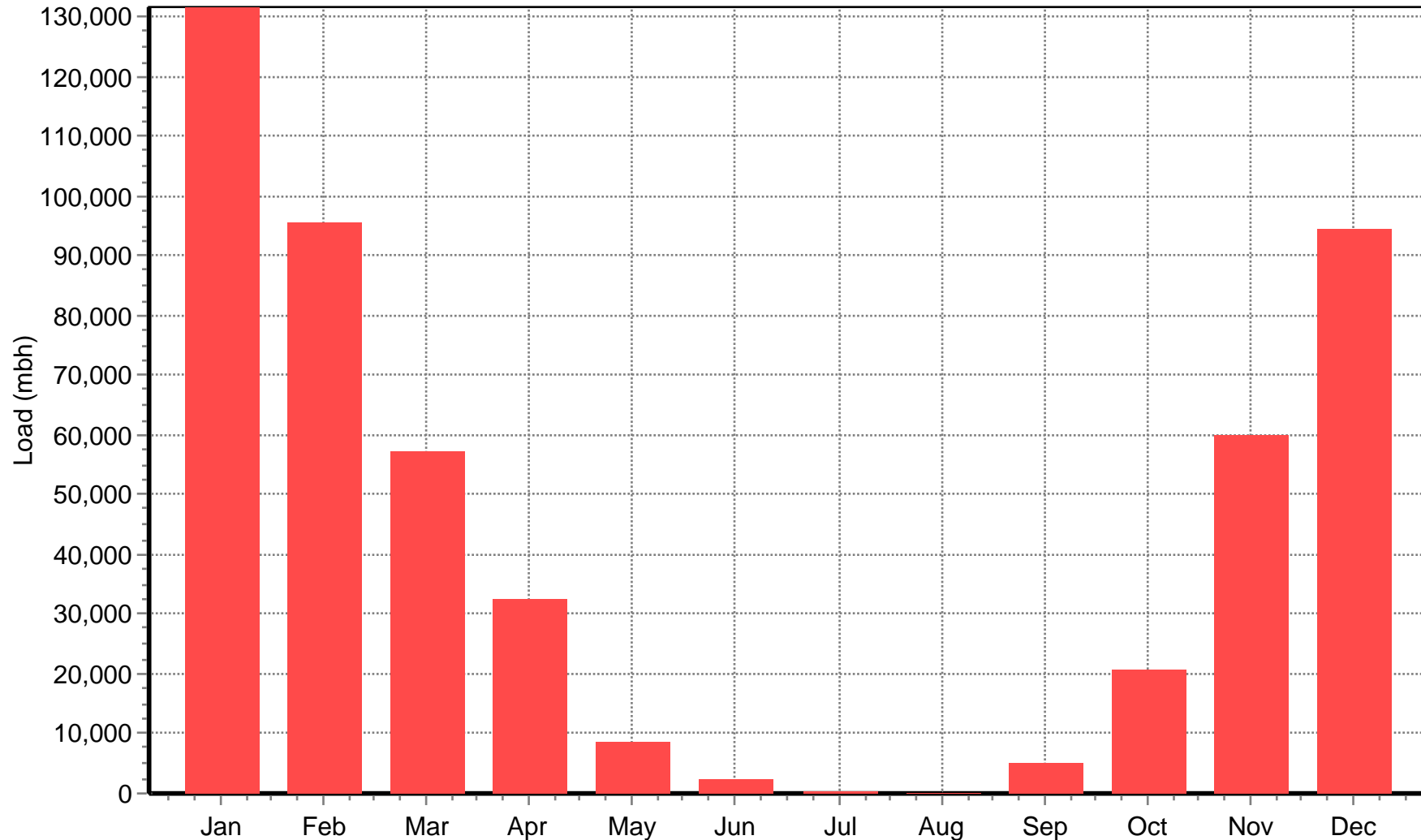
MakeUpAir Total Heating Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Total PRE-Heating Load

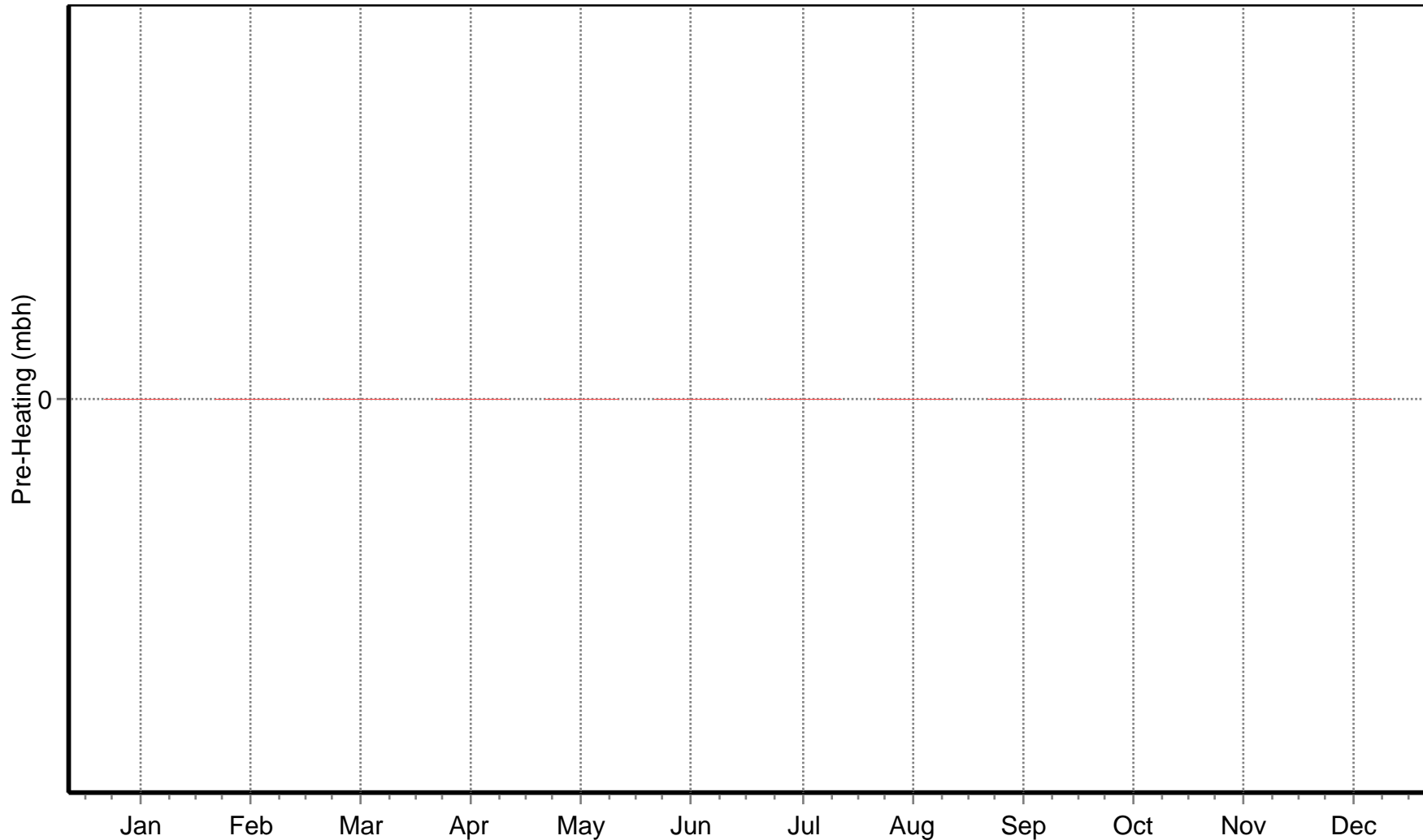
MakeUpAir Total PRE-Heating Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Motor PRE-Heating

MakeUpAir Motor PRE-Heating by Month

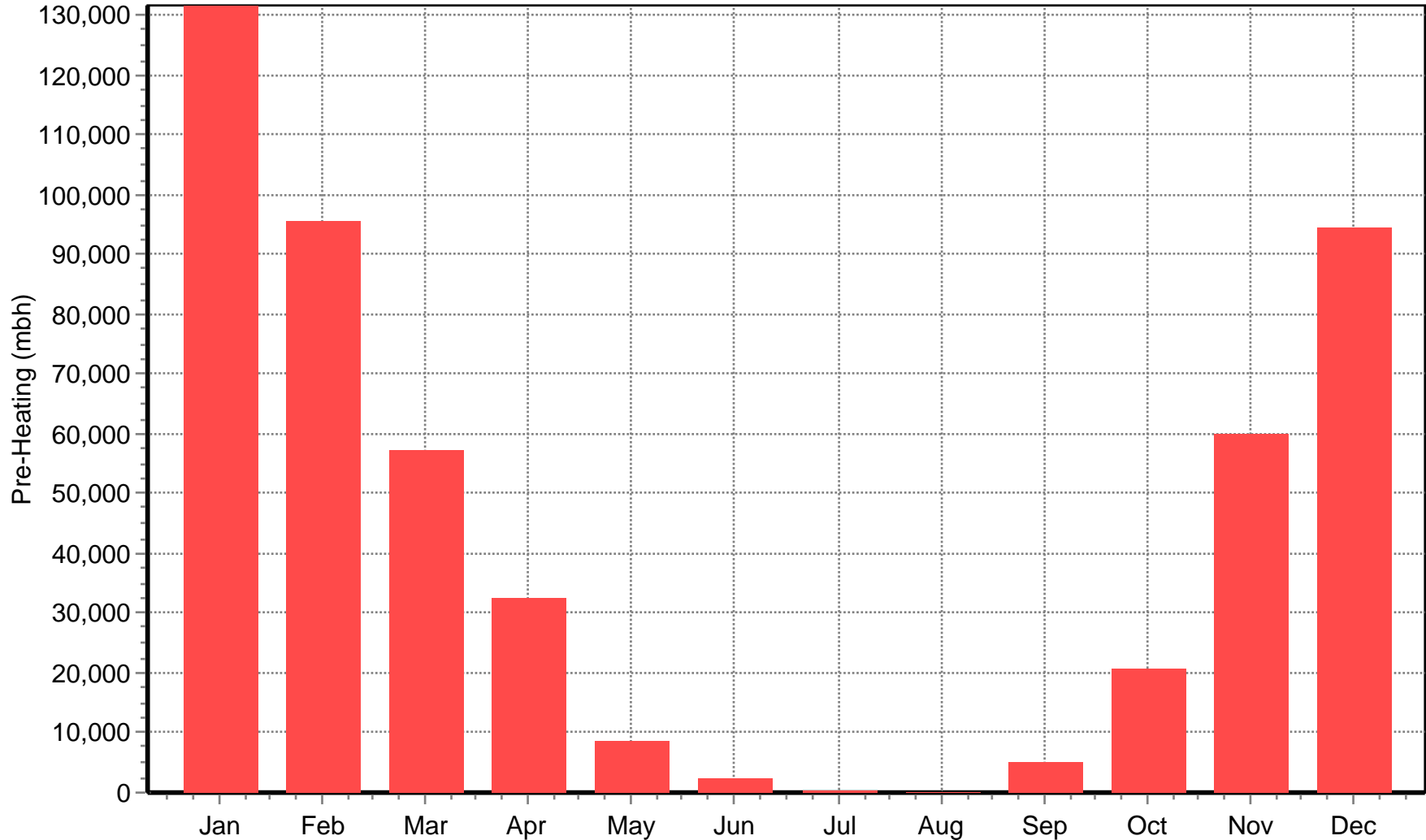


Note: Output values are estimates only and actual results may vary.



## MakeUpAir Heater PRE-Heating

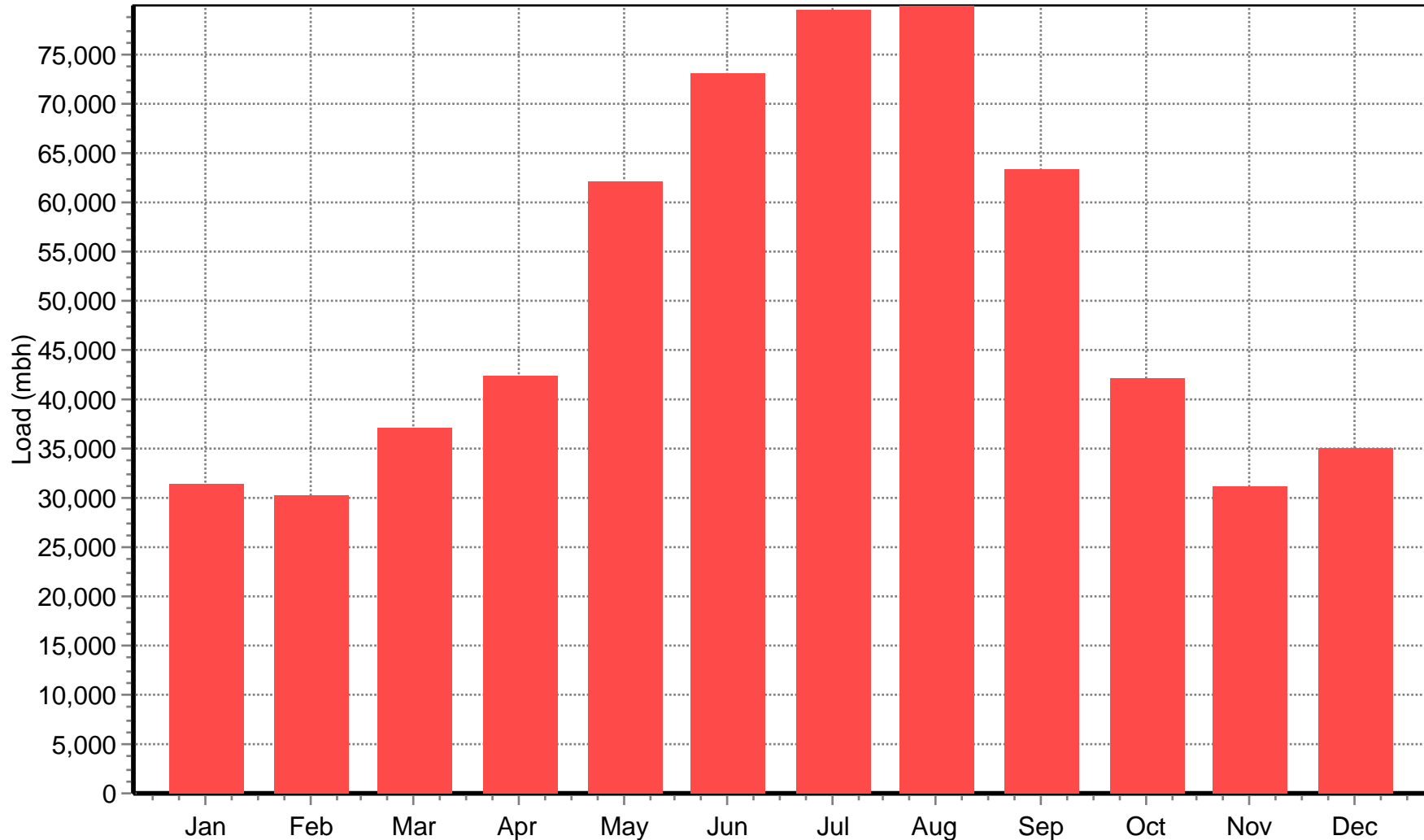
MakeUpAir Heater PRE-Heating by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Total RE-Heating Load

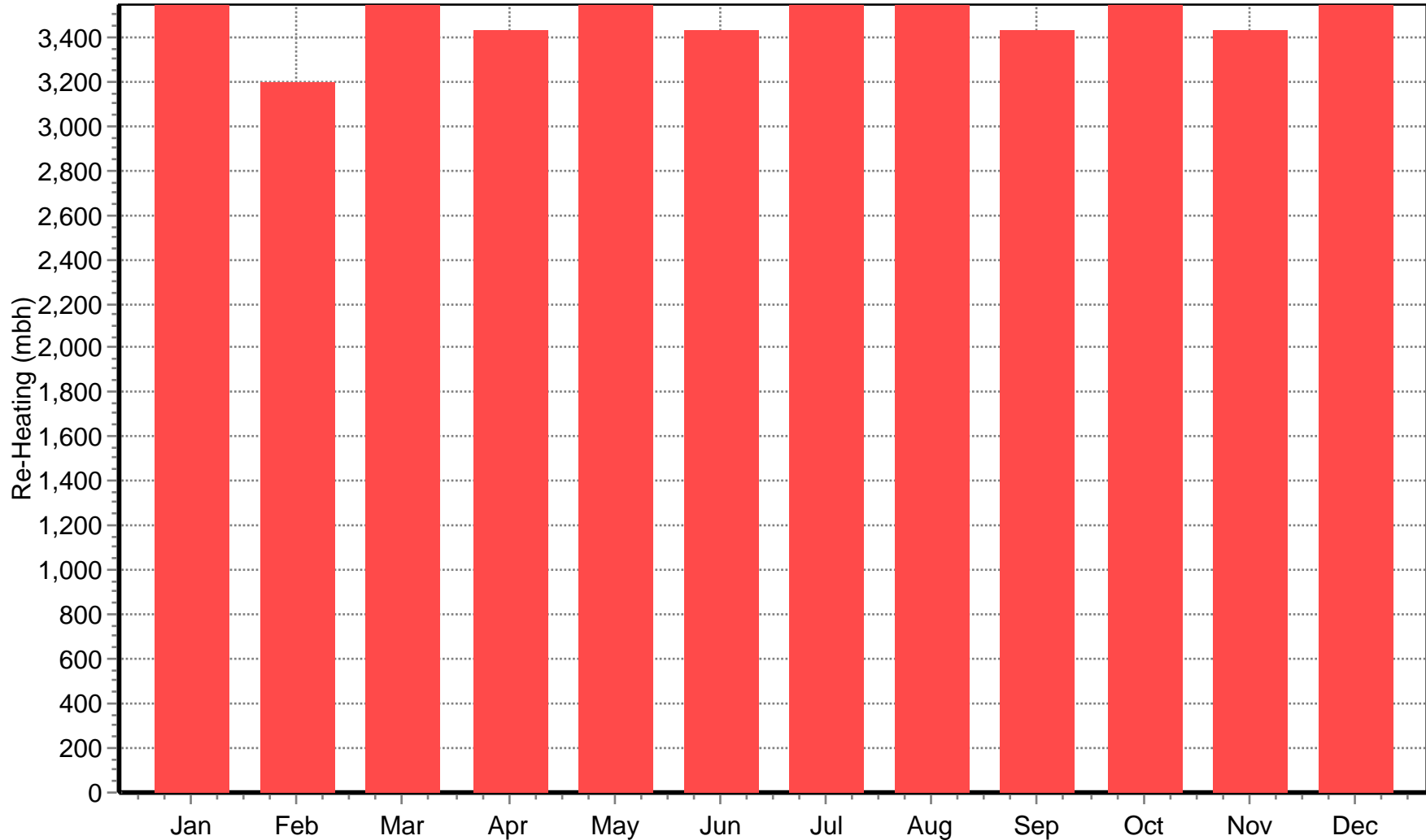
MakeUpAir Total RE-Heating Load by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Motor RE-Heating

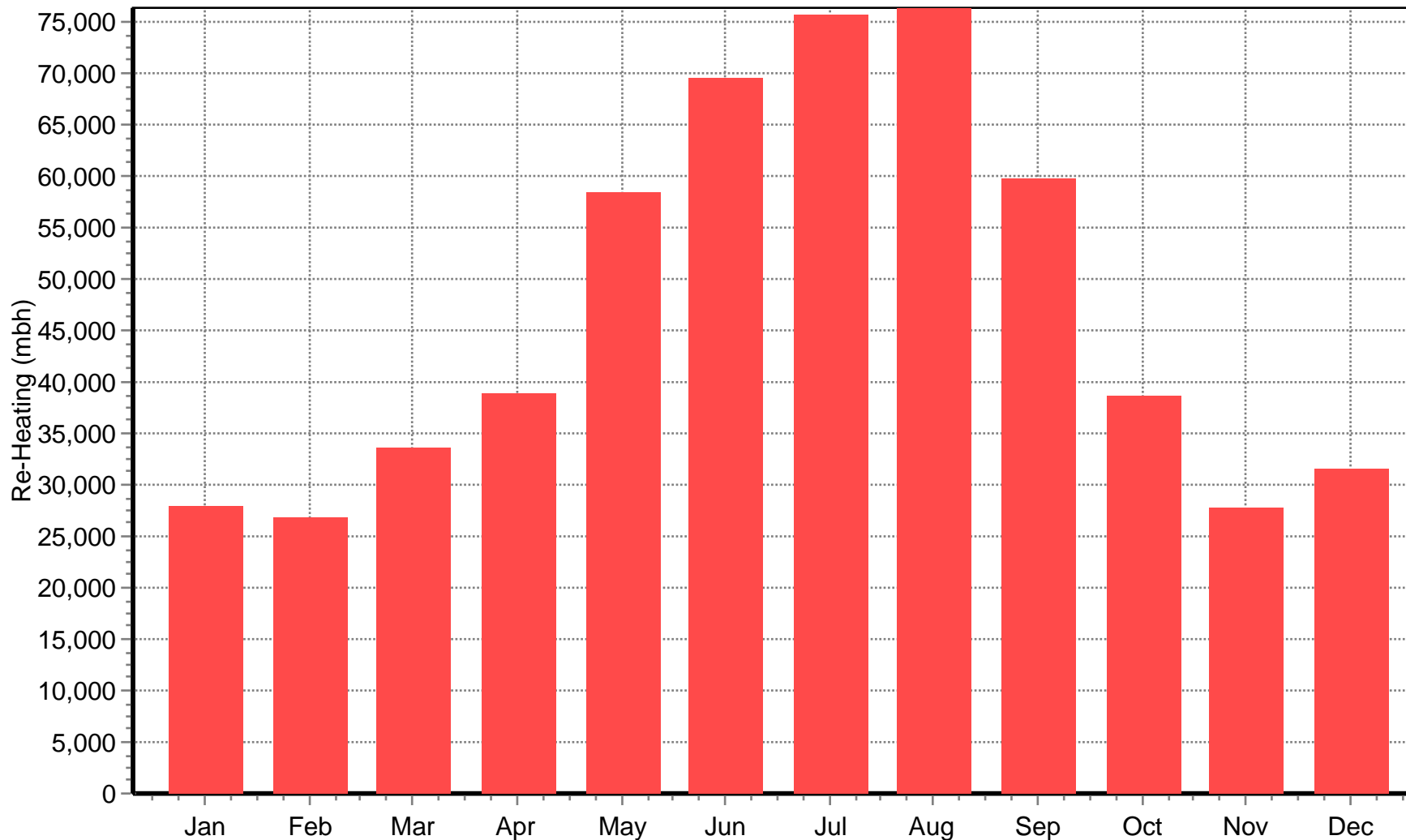
MakeUpAir Motor RE-Heating by Month



Note: Output values are estimates only and actual results may vary.

## MakeUpAir Heater RE-Heating

MakeUpAir Heater RE-Heating by Month



Note: Output values are estimates only and actual results may vary.