



HURRICANE CITY UTAH

Mayor
Nanette Billings

City Manager
Kaden C. DeMille

Power Board
Mac J. Hall, Chair
Jerry Brisk
Pam Humphries
Dave Imlay
Joseph Prete
Charles Reeve

Power Board Meeting Agenda

11/2/2022

3:00 PM

Power Department Meeting Room – 526 W 600 N

Notice is hereby given that the Power Board will hold a Regular Meeting in the Power Department Meeting room located at 526 W 600 N, Hurricane, UT. A silent roll call will be taken, along with the Pledge of Allegiance and prayer by invitation.

AGENDA

1. Pledge of Allegiance
2. Prayer
3. Approval of Minutes from October 2022

STAFF REPORTS

Scott Hughes/Power Director
Brian Anderson/Transmission & Distribution Superintendent
Michael Ramirez/Service Superintendent
Jared Ross/Substation & Generation Superintendent

OLD BUSINESS

NEW BUSINESS

1. Generation Resource Possibilities
2. Technical Task Force (TTF) Update
3. UAMPS Updates
4. Budget





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1 The Hurricane City Power Board met on October 5, 2022, at 3:00 p.m. at the Clifton Wilson Substation on 526
2 W 600 N.

3
4 In attendance were Chairman Mac Hall, Pam Humphries, Jerry Brisk, Charles Reeve, Dave Imlay (by phone),
5 Scott Hughes, Brian Anderson, Mike Ramirez, Jared Ross, and Crystal Wright.

6
7 Mac Hall welcomed everyone to the meeting; Pam Humphries led the Pledge of Allegiance and Charles Reeve
8 offered the prayer. Pam Humphries motioned to approve both sets of minutes from the September 2022
9 meetings after one correction. Charles Reeve seconded the motion. Motion passed unanimously.

10
11 **Scott Hughes:** Scott Hughes reported that we are still down a journeyman lineman. The employees are still
12 working hard to keep things moving along. The rate increase recommended at the September special meeting
13 was passed at City Council. The impact fees were not able to be updated. Impact fee changes require a 10-day
14 public notice. We are in the process of getting that done so it can be presented in a future City Council
15 meeting. We have selected members for the Distributed Energy Resource (DER) committee and the first
16 meeting will be tomorrow. The committee will be addressing solar policies to begin with.

17
18 **Brian Anderson:** Brian Anderson reported updates on the Cordero Line Extension. All but three of the poles
19 have been set. We were unable to dig those holes. He spoke with the developer and mentioned we can
20 contract it out and bill them or they can hire their own contractor to dig those three holes. Mac Hall asked a
21 question about easements on one of the parcels after a question he had received from a resident. Brian
22 Anderson mentioned that he will investigate the easement for that parcel specifically. The 2800 West project
23 required the relocation of some poles of a temporary line that will be removed when the permanent line goes
24 in. Brian Anderson has let the contractor know when they initially approached us, we had a window to work on
25 it, but that window has closed. We don't know when we'll be able to get back to that project. Reported on the
26 600 North Phase 3A project. An outage is anticipated for January-March 2023 for that section. We will dig the
27 holes we can and may have to contract some out. We have ordered the steel poles and they're in design
28 currently. The Streets Department dug into a line at 100 East 100 South. It was an easy conduit repair and
29 didn't damage any wire. Discussion about existing inventory orders for transformers, lead times and price
30 increases.

31
32 **Mike Ramirez:** Mike Ramirez didn't have anything new to report this month. Still keeping projects moving
33 along.

34
35 **Jared Ross:** Jared Ross reported on the generator repairs that have been made in the last month. Generator 5
36 coupler was replaced the morning before our last run. Parts have been ordered for Generator 2. We are still
37 waiting for parts for Generator 6. The air permit should have passed the 30-day public comment period. He will
38 follow up and find out which point the permit is at exactly. He spent a day touring the new power generation



plants in Southern Utah. He will provide pictures of these facilities for next month's meeting. A water leak was repaired in the floor in the generator room. Sections of the concrete floor had to be cut out. They pulled a ½-inch line through the existing 1-inch line to complete the repair. Brentwood Substation has a battery bank that is going bad, and they had to do some maintenance. It is nearing the end of its life and will need to be replaced in the next year or two. The switch basement was installed at the Sky Mountain Substation. There is another switch basement being installed next Tuesday out at the Three Falls Substation. Rock crushing is still being done out at the Three Falls Substation. Ash Excavating will be digging to prepare the space for the switch basement at that location because their equipment is already out there. We started getting bids for Three Falls Substation foundations and building. Only one bid came in. It is high and start date isn't until December. We will continue to accept bids for this hoping for a sooner start time and lower cost. Also received bids for control cabinets this week. Those bids are looking good. Hoping by next month all materials will be on order for the Three Falls Substation.

1150 W Alignment Study Update: Scott Hughes reported this project has been discussed in length. After the public open house discussion there are different routes being looked at. One route is significantly less expensive than the other. City staff is putting an analysis together for the different proposed routes with costs to present to City Council. Mac Hall commented you may pay less for the power line, but you will probably pay more for right-of-way procurements. There are going to be difficulties in other areas of this line with right-of-way procurements with landowners in the section by the airport. There are disagreements over the section line and land acquisition coming solely from the landowner side.

Capacity Update: Scott Hughes provided an update on capacity. Things are a lot the same as when he first took over as Power Director. The developments that currently have signed construction drawings have maxed out capacity on that circuit. The projects are not complete, but that capacity has been promised. Meetings with city staff are occurring about what to do. Construction drawings have a 2-year limit on them. There is a major concern about whether to continue to approve additional plans in that area. There are differing opinions about how to approach and solve this issue. Mac Hall stated one problem is the Public Infrastructure District (PID). The PID's that are approved take away the ability to say no. He feels that not including major power infrastructure in those PID's was wise.

UAMPS Updates: Scott Hughes reported that geothermal is still moving forward. Bids are being collected to find out which project to go with. Muddy Creek is still moving forward. The Inflation Reduction Act (IRA) can be applied and will provide approximately a 15% decrease in this project. Steel Solar is still going well. This is scheduled to go live in September-December 2023. The CRSP/CREDA project had 2020 information provided. Do not use this report they provided. If we can get the updated report, Scott Hughes will send it out to the board. San Juan is being decommissioned. The Enchant project is no longer moving forward. PX/Scheduling shows high prices through the big heat wave. The IPP Renewed project is moving forward. Hunter project is having issues with coal acquisition. There was talk about a new geothermal project. Long discussion about historic challenges with geothermal, possible locations and about the proposed project they are looking at. UAMPS talked about adding more generation throughout the state. There were different options for possibly one large plant or to distribute more generation throughout each of the members individually. Mac Hall asked if the board is ok with 10-12 MW to complete the UAMPS solicitation for that project. They declared their agreement for a solicitation for that amount of power. Reported on the CFPP project. Costs for this project have increased substantially for material costs that went up and interest rates that increased. Mac Hall stated that if he knew this project was going to succeed, he would be willing to pay the increased cost because of the

84 guaranteed dispatchable power it would provide. Conversation about the increased costs for all projects will
85 almost certainly mean higher rates going forward.
86

87 **Budget:** Scott Hughes presented the previous month's budget information. Crystal Wright stated there was an
88 error in the previous month's numbers due to the generation kWh's not being entered when calculating the
89 average cost for the month. This was the case for each of the months that we ran the generators. The problem
90 has been resolved with the charts and graphs for all of the months with the error.
91

92 The Power Board adjourned at 5:05 p.m. The next Power Board Meeting is scheduled for November 2, 2022, at
93 3:00 p.m.

DRAFT

2022 Southwest Utah Post-Peak Report



Let's turn the answers on.

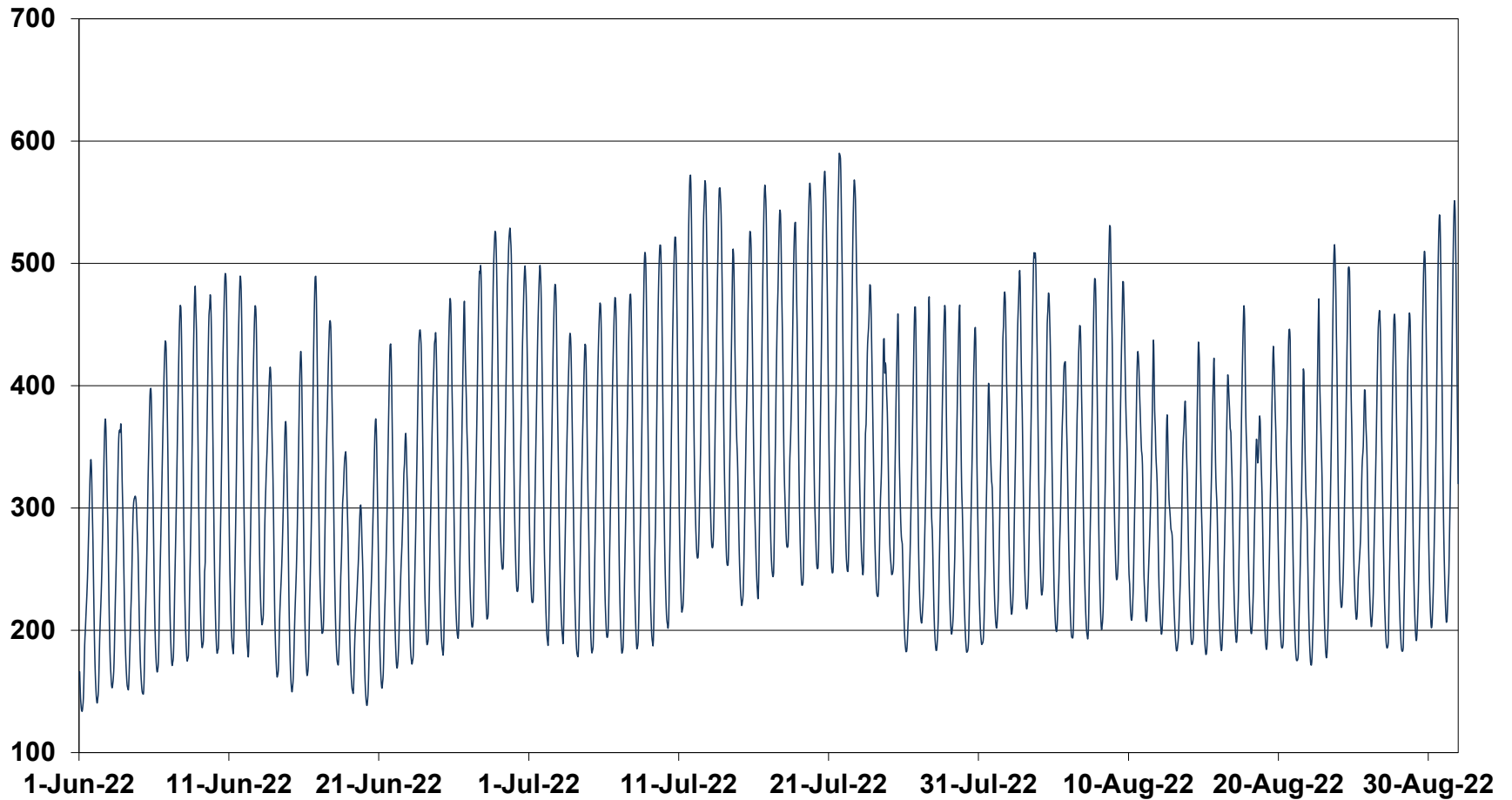
Washington County Area Peak

590.0 MW

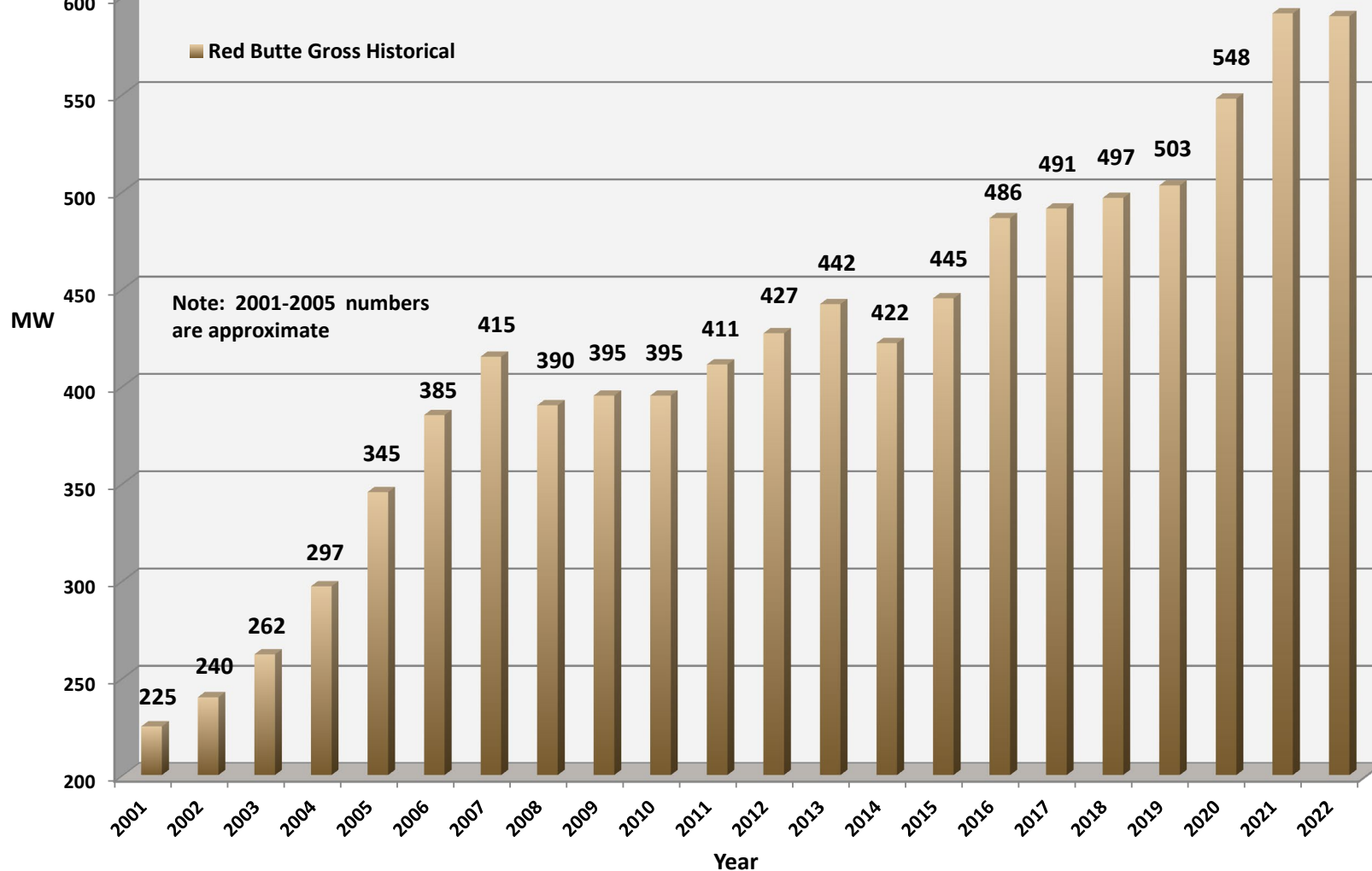
July 21st (Thursday)

Between 4:00 and 5:00 pm

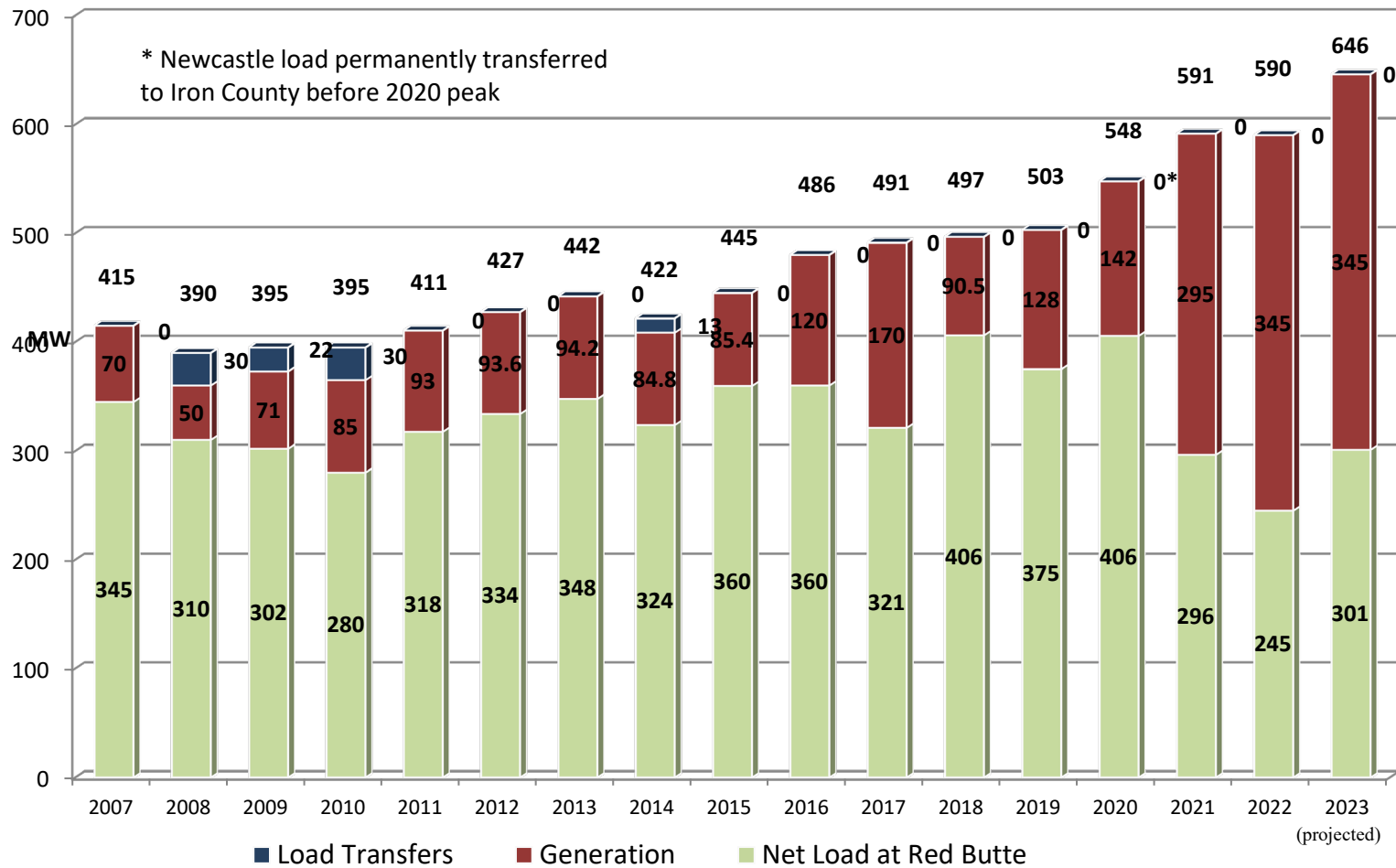
Southwest Utah - Washington County Area June-August 2022 Gross Summer Peak Load



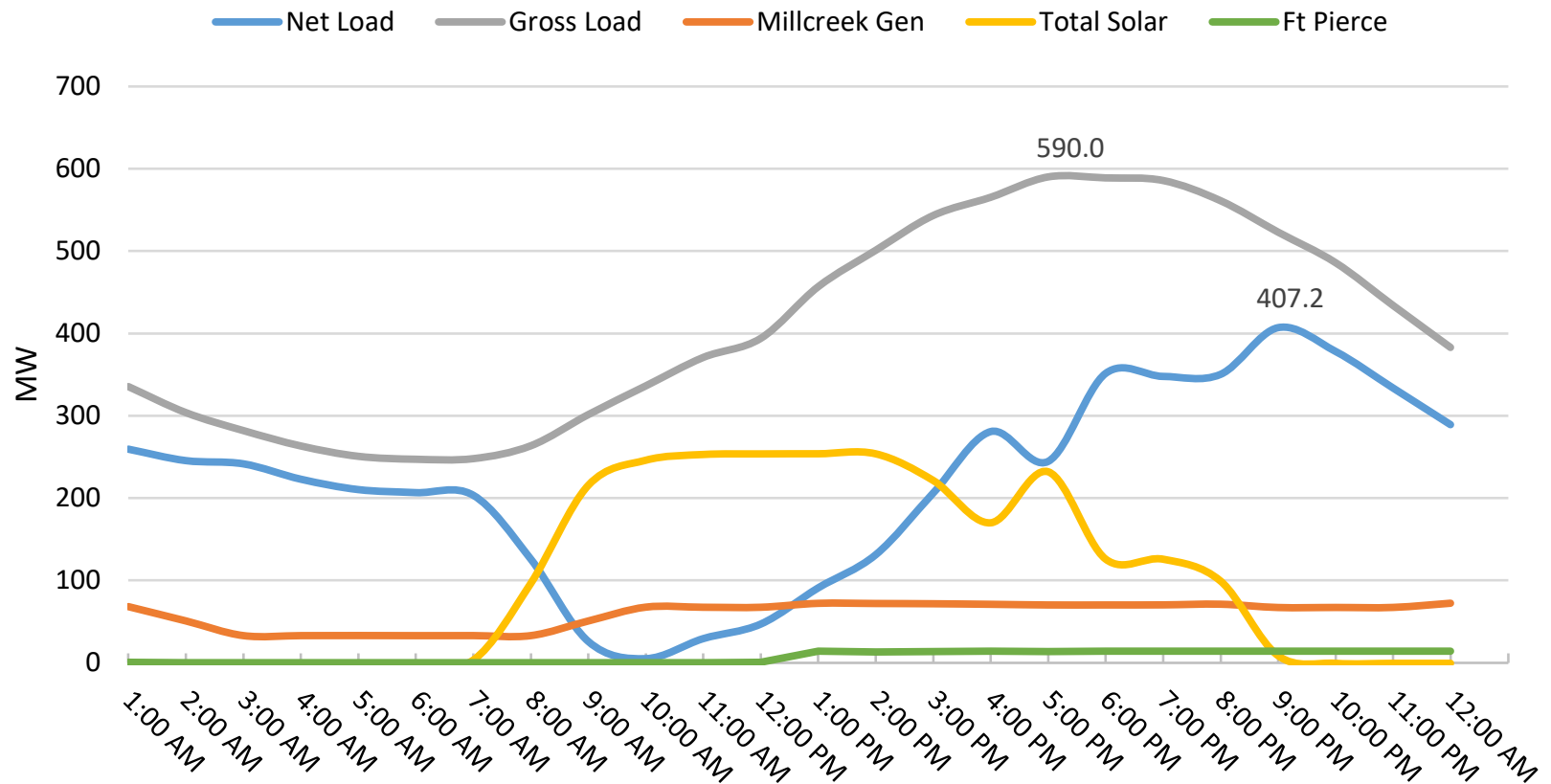
Southwest Utah Historical Loads (Washington Co. Area)



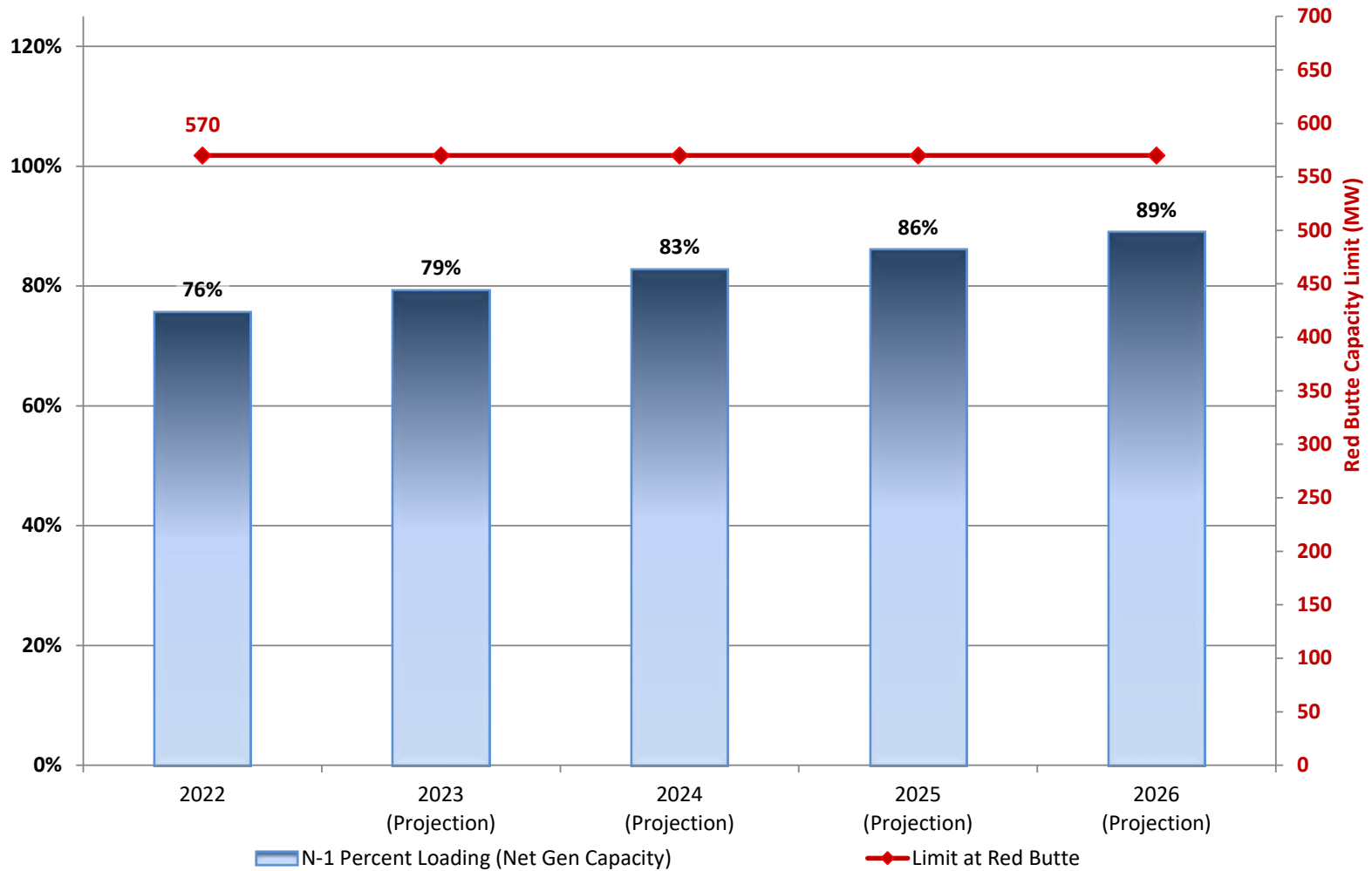
Washington County Area Detailed Historical Loading



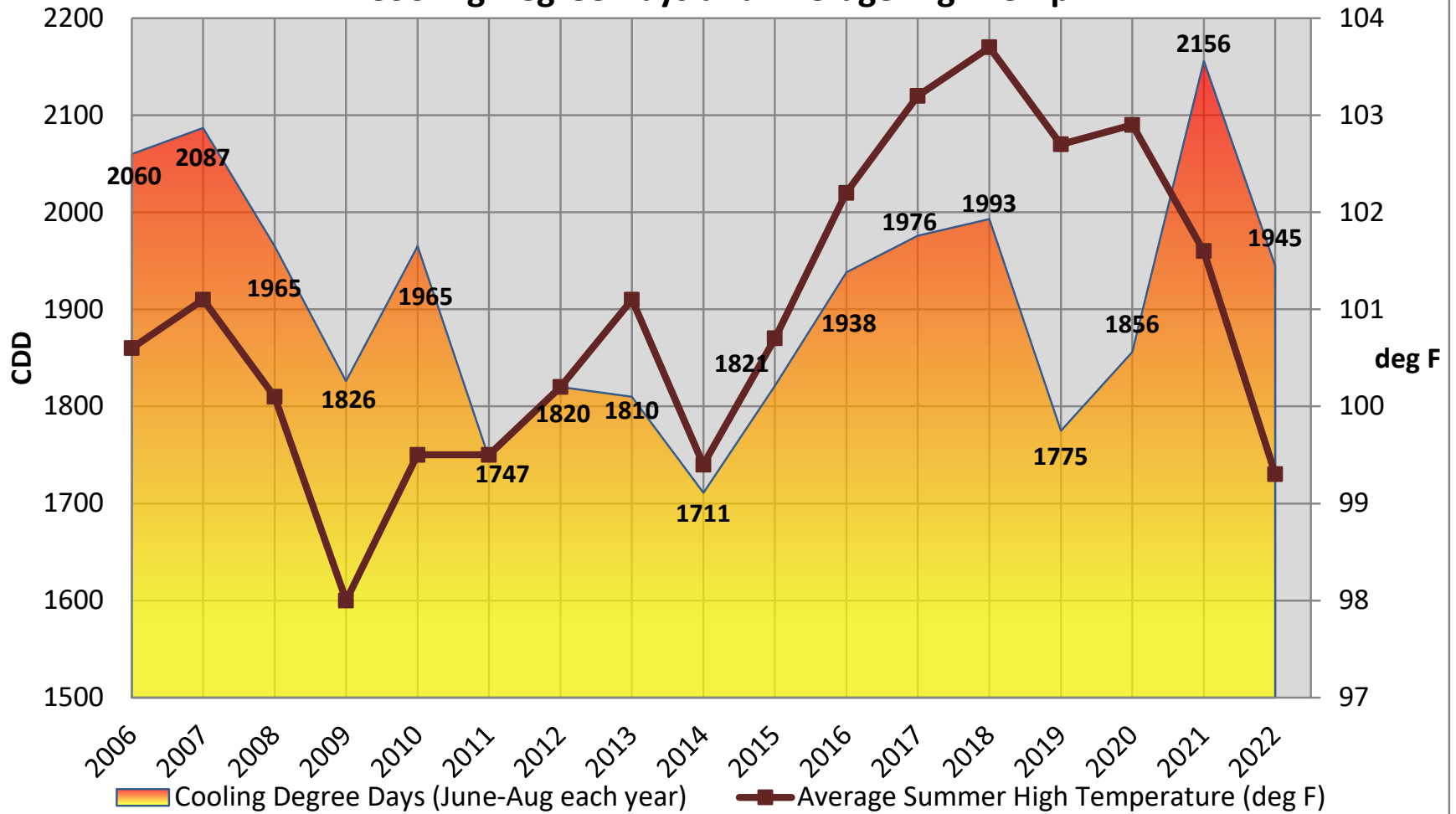
July 21, 2022 Washington County Profile



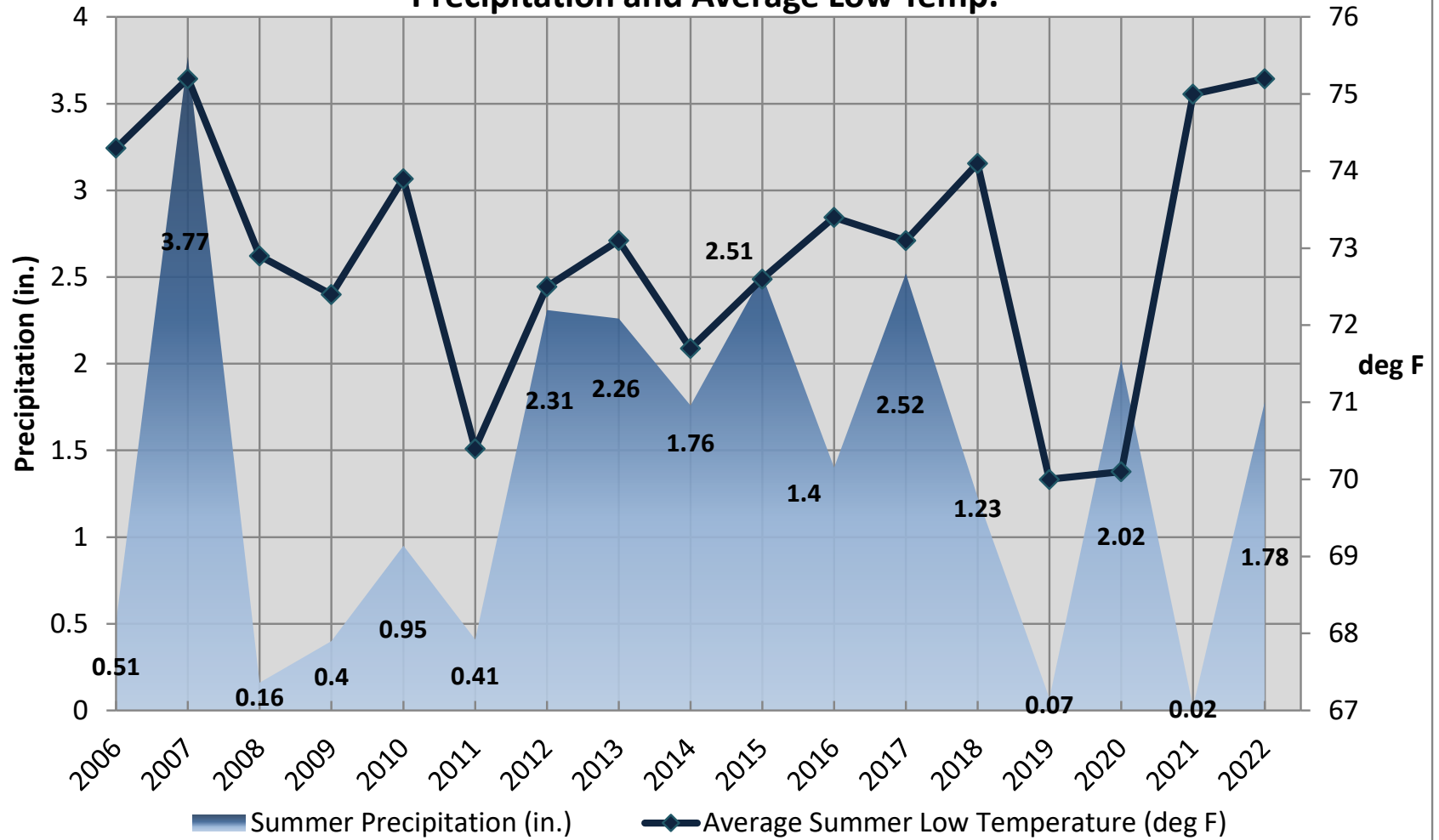
Washington County Area Planning Criteria Loading for Red Butte transformer failure



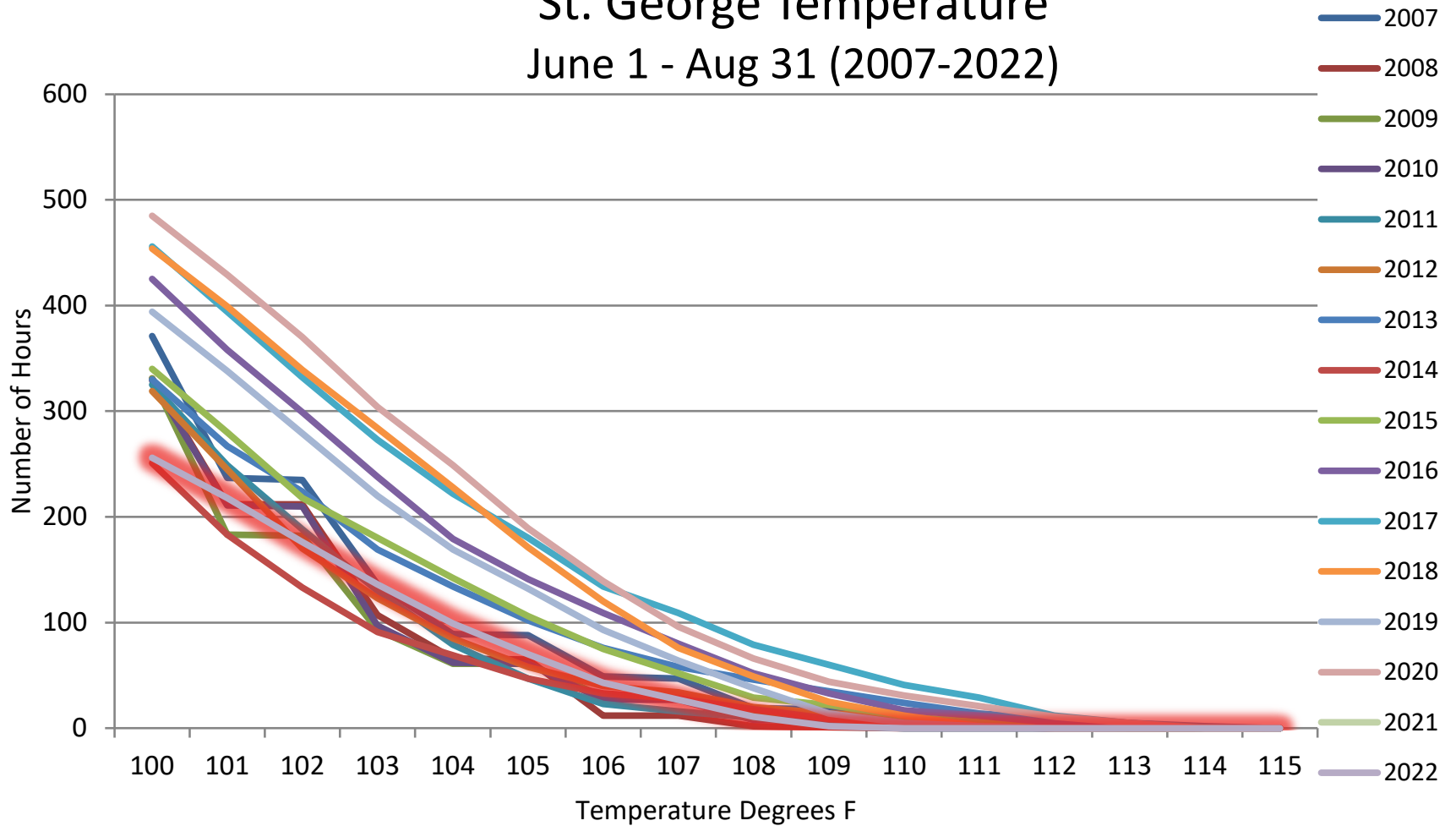
Cooling Degree Days and Average High Temp.



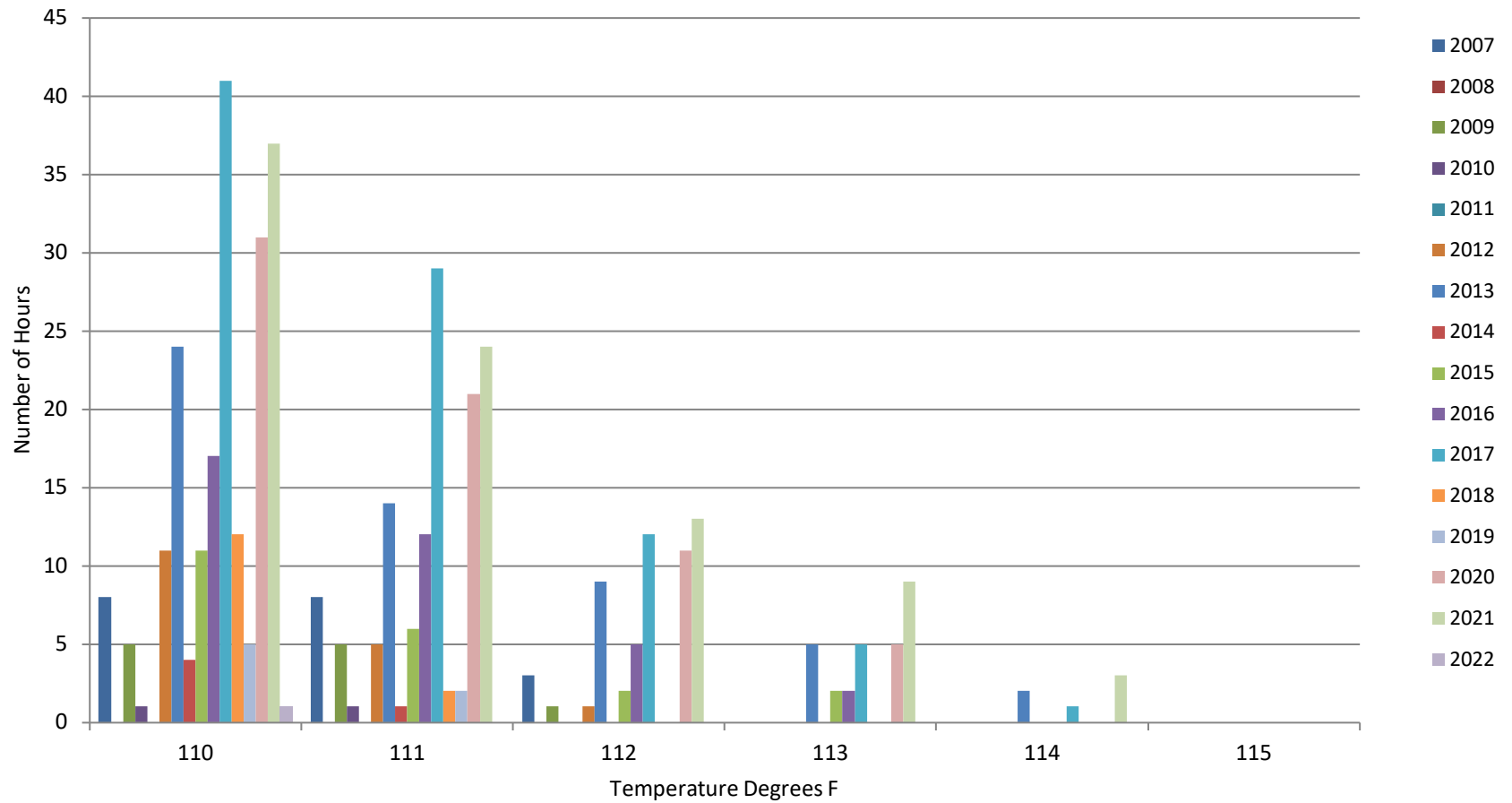
Precipitation and Average Low Temp.



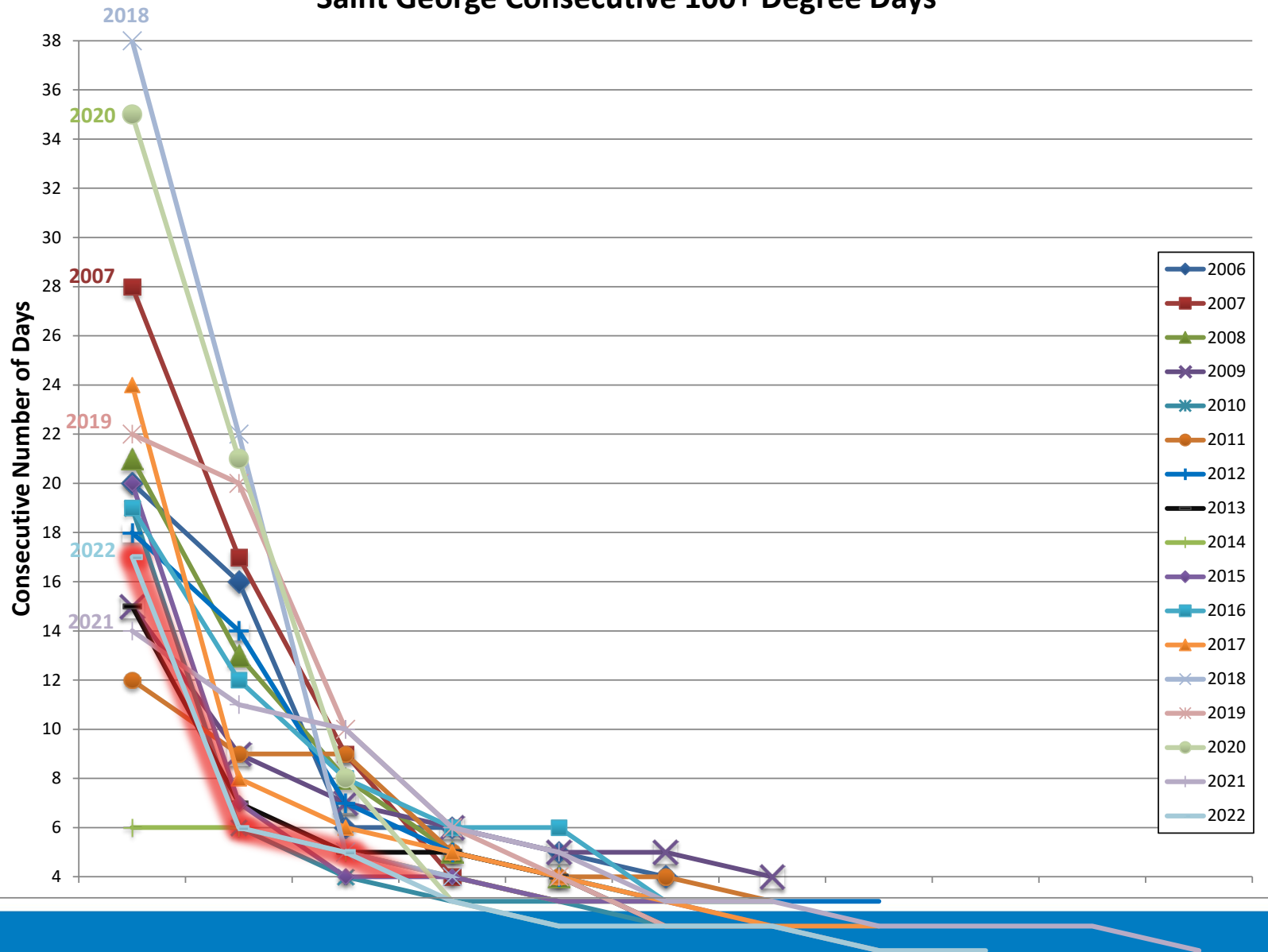
St. George Temperature June 1 - Aug 31 (2007-2022)



St. George Temperature, 110 Degree and Above June 1 - Aug 31 (2006-2022)



Saint George Consecutive 100+ Degree Days



Projected Load

- 2022 Projected Non-Coincidental Load was 624 MW based on L&R. Future growth expected at 3-4%.

Washington County Area Annual Load and Resource Projections (received Spring 2022)

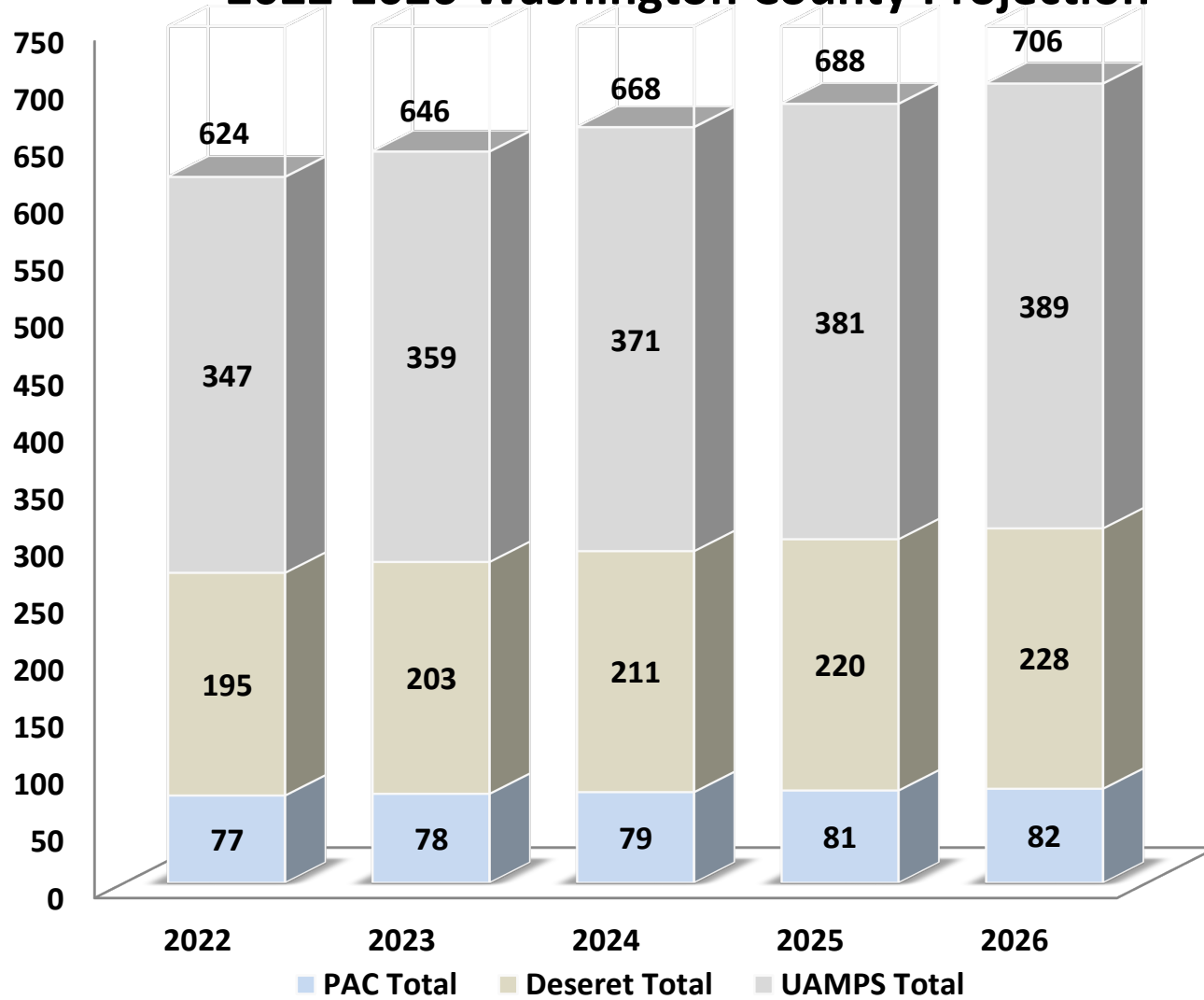
	"Non-Coincidental" (MW)				
	2022	2023	2024	2025	2026
St. George Sub - Skyline #1	83.3	85.3	87.2	88.5	89.6
St. George Sub - Skyline #2	83.3	85.3	87.2	88.5	89.6
St. George Sub - River	68.1	69.7	71.3	72.2	72.9
Purgatory - Anticline	26.8	28.4	29.9	31.4	32.4
Purgatory - Clifton Wilson	45.7	48.3	50.8	53.3	55.5
Purgatory - Millcreek	34.5	36.5	38.2	39.8	40.9
City of St. George (Ledges Sub)	4.9	5.9	6.7	7.5	8.5
UAMPS Total	346.6	359.3	371.2	381.2	389.4
Growth Rate		4%	3%	3%	2%

Middleton - Dixie REA	185.0	193.0	201.0	210.0	218.0
Twin Cities - Garkane REA	10.0	10.0	10.0	10.0	10.0
Deseret Total	195.0	203.0	211.0	220.0	228.0
Growth Rate		4%	4%	4%	4%

Enterprise	8.3	8.3	8.3	8.3	8.3
Gateway/Quail Creek/Toquerville	29.4	30.2	31.0	31.7	32.6
Ivins/Red Mountain	25.4	25.9	26.4	26.9	27.4
Middleton #4	13.4	13.6	13.8	14.0	14.2
PAC Total	77	78	79	81	82
Growth Rate		2%	2%	2%	2%

Total Area Load (MW) (all loads typically fed from Red Butte Substation-6MW of Losses Added)	624	646	668	688	706
Total Area Growth Rate		4%	3%	3%	3%

2022-2026 Washington County Projection



Upcoming Southwest UT Projects

- 2024
 - Addition to Red Butte/Central RAS that covers N-1-1 and N-2 issues between Red Butte/Central and St. George substations
- 2026
 - Convert Red Butte-St. George line to 345 kV and install 345/138 kV transformer at St. George

Conclusions

- 2022 gross peak load - 590 MW was slightly below the 2021 peak
- Summer weather conditions – below average with no extreme temperatures
- Even with lower temperatures, loading was similar to last year's all-time peak
- Sufficient transmission capacity for projected future growth

MEMORANDUM

TO: San Juan Project Chairman

FROM: UAMPS Staff

DATE: October 14, 2022

SUBJECT: September 2022 Operations Report

San Juan was restricted all month with high backpressure. It had an additional restriction for 15 hours due to a pulverizer. San Juan 4 generated until coal ran out on September 29th, 2022. It gave its last hurrah of 27 MW to UAMPS on hour 8. It was offline on hour 9. So long, San Juan! San Juan project scheduled 18,636 MWh of energy. The equivalent availability for the month was 74%. Budgeted fuel cost is \$26.10 per MWh.

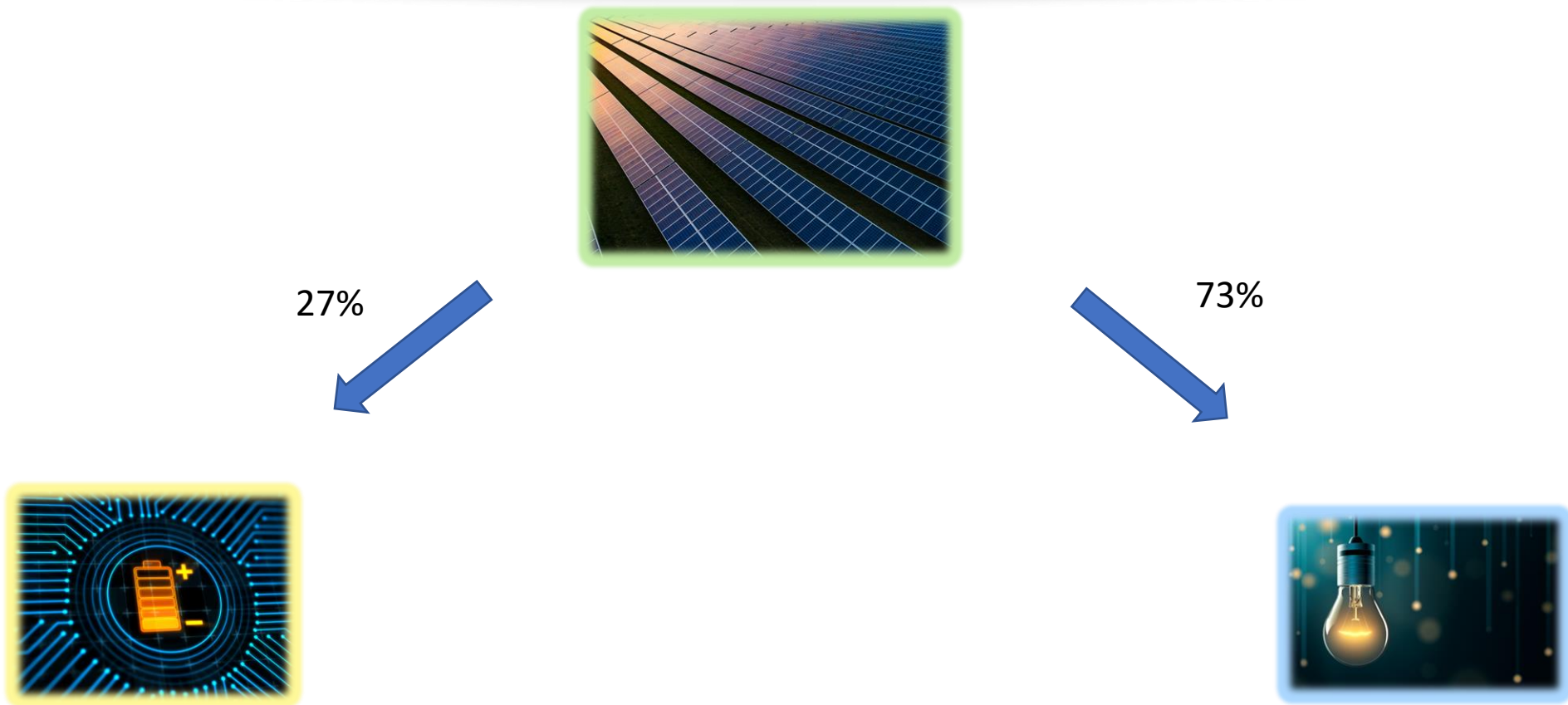
The web file portal contains a summary of fuel and plant statistics for the previous twelve months.



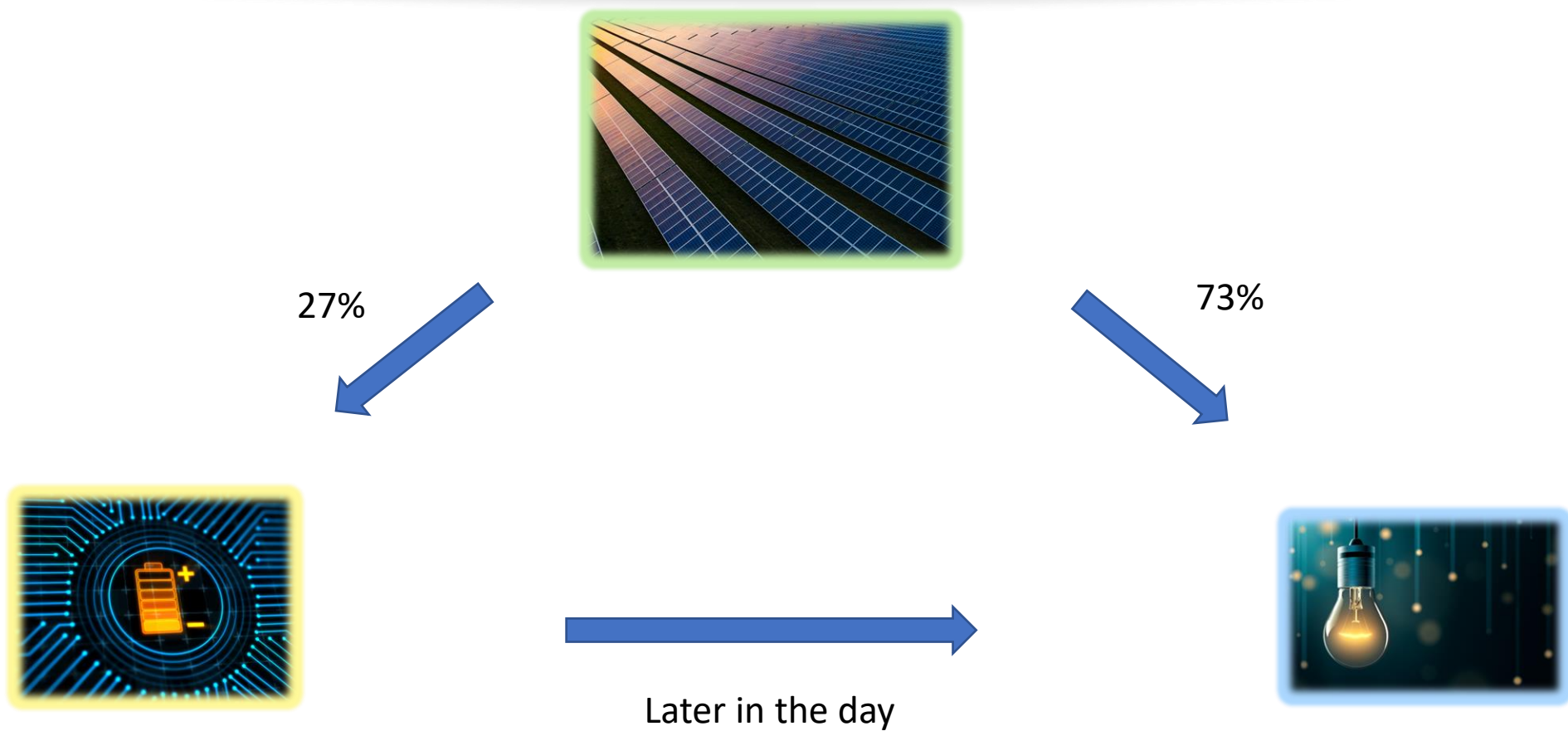
Solar Plus Storage



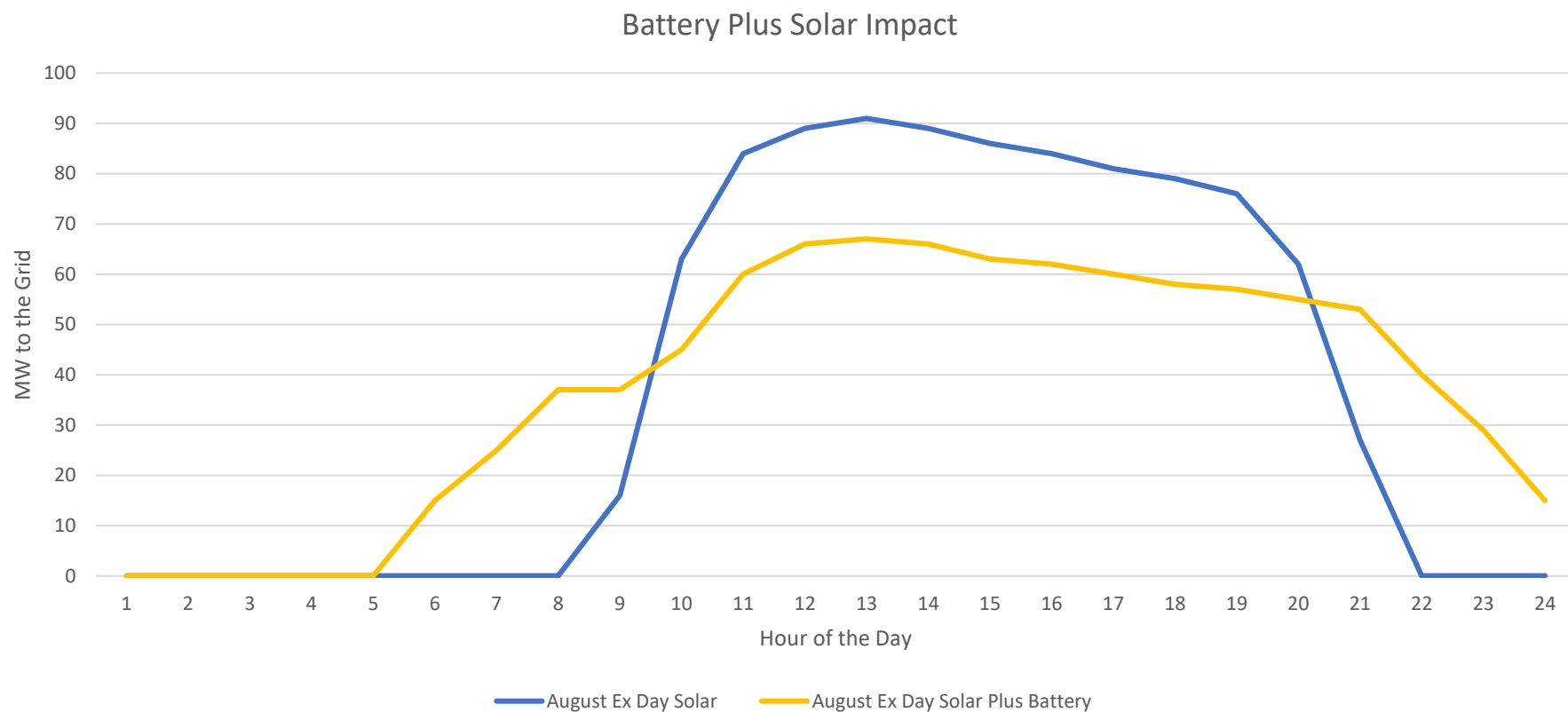
Solar and Storage Example Scenario



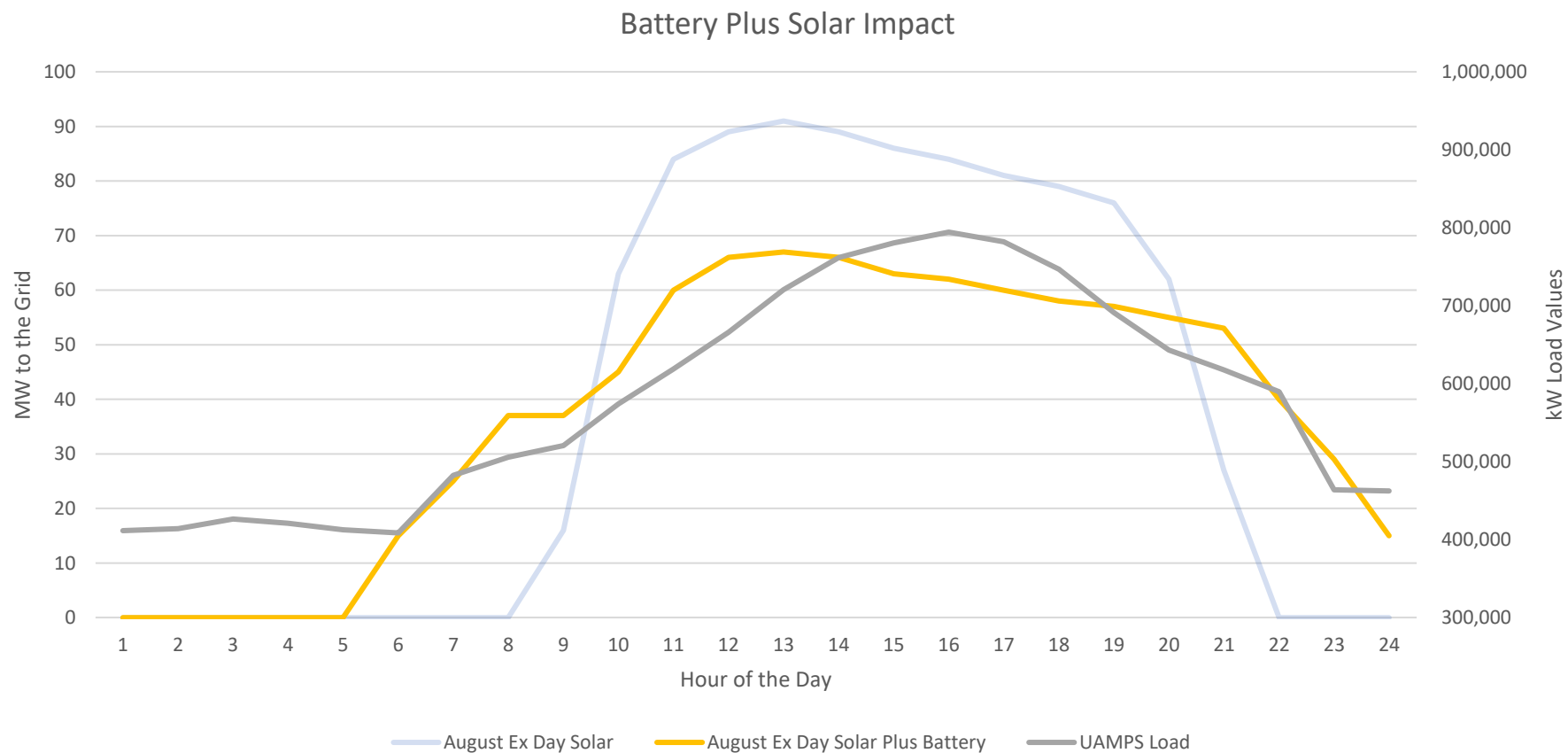
Solar and Storage Example Scenario



Solar and Storage Profile Example



Solar and Storage Profile with Load



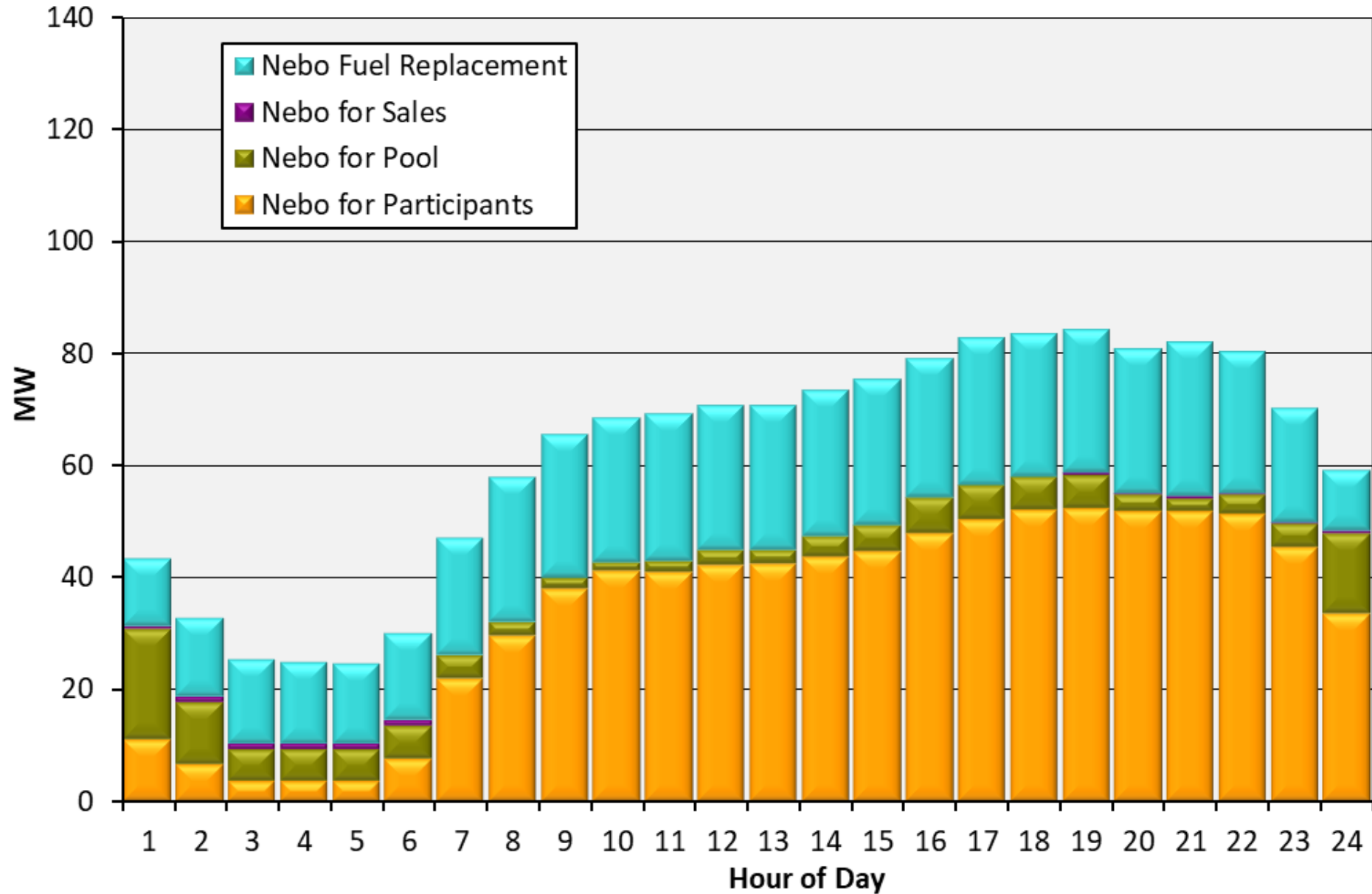


PX and Scheduling Report

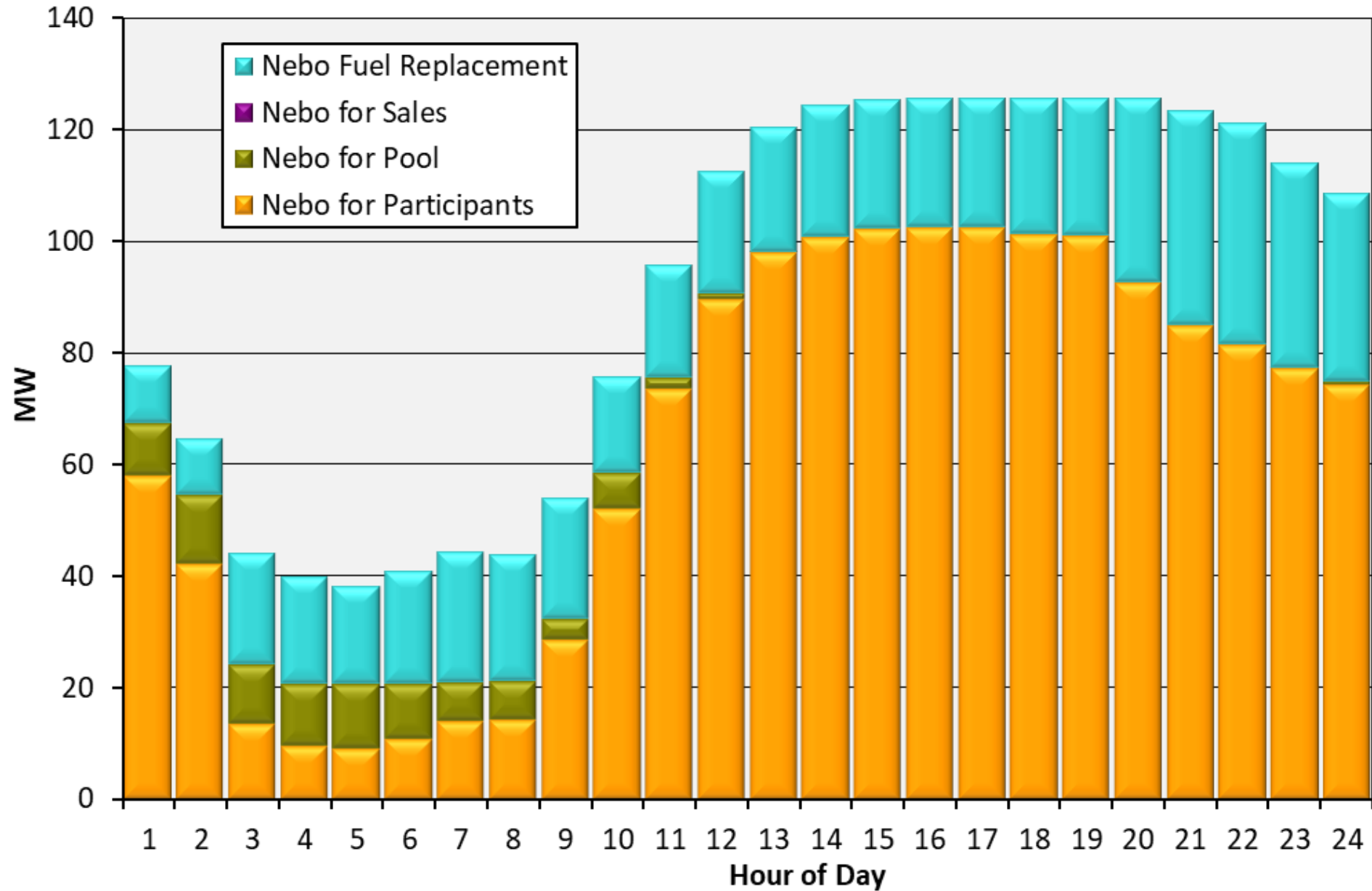
September 2022



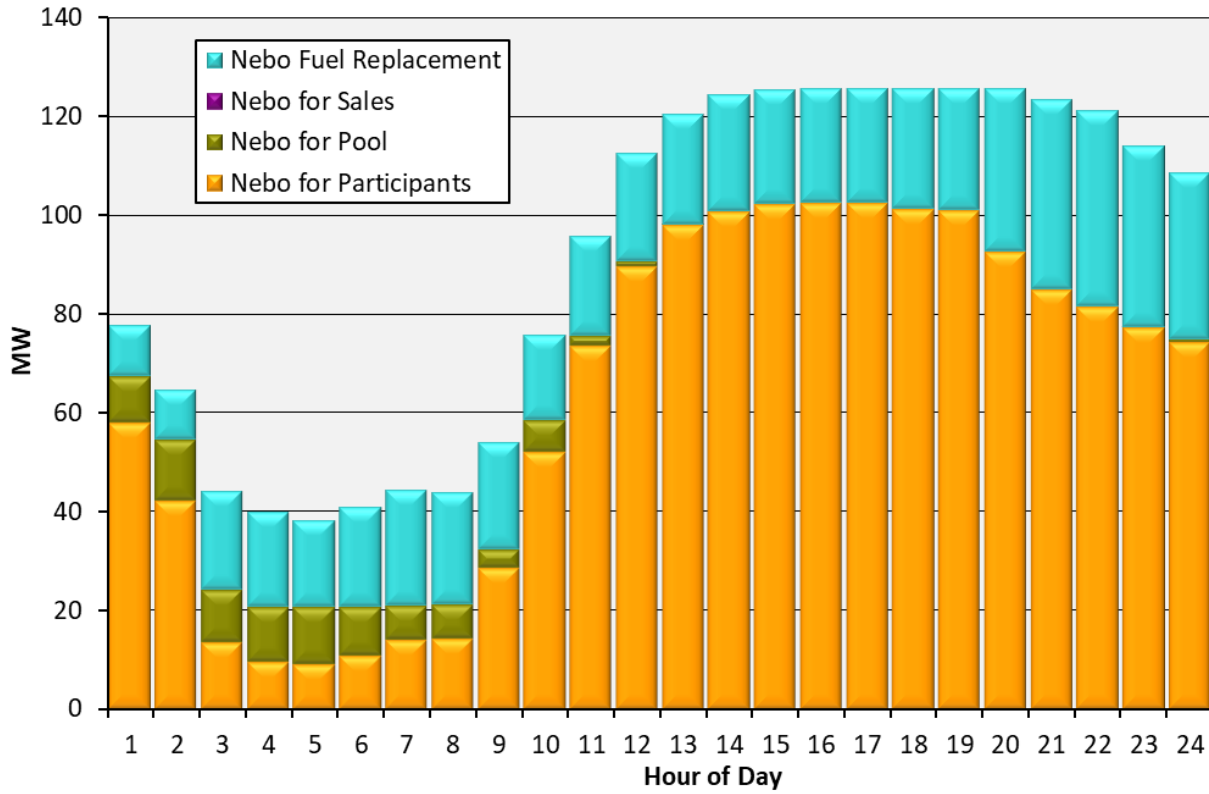
Nebo Average Day MW for May-2022



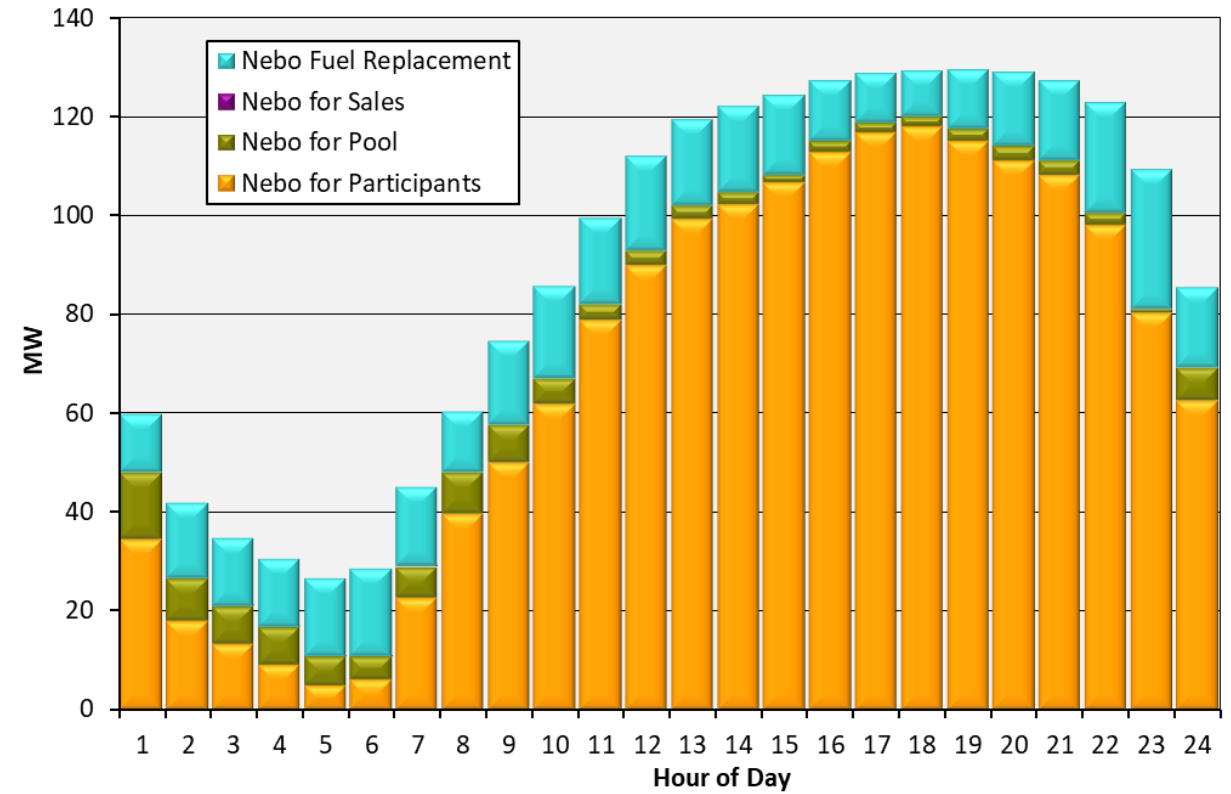
Nebo Average Day MW for Aug-2022



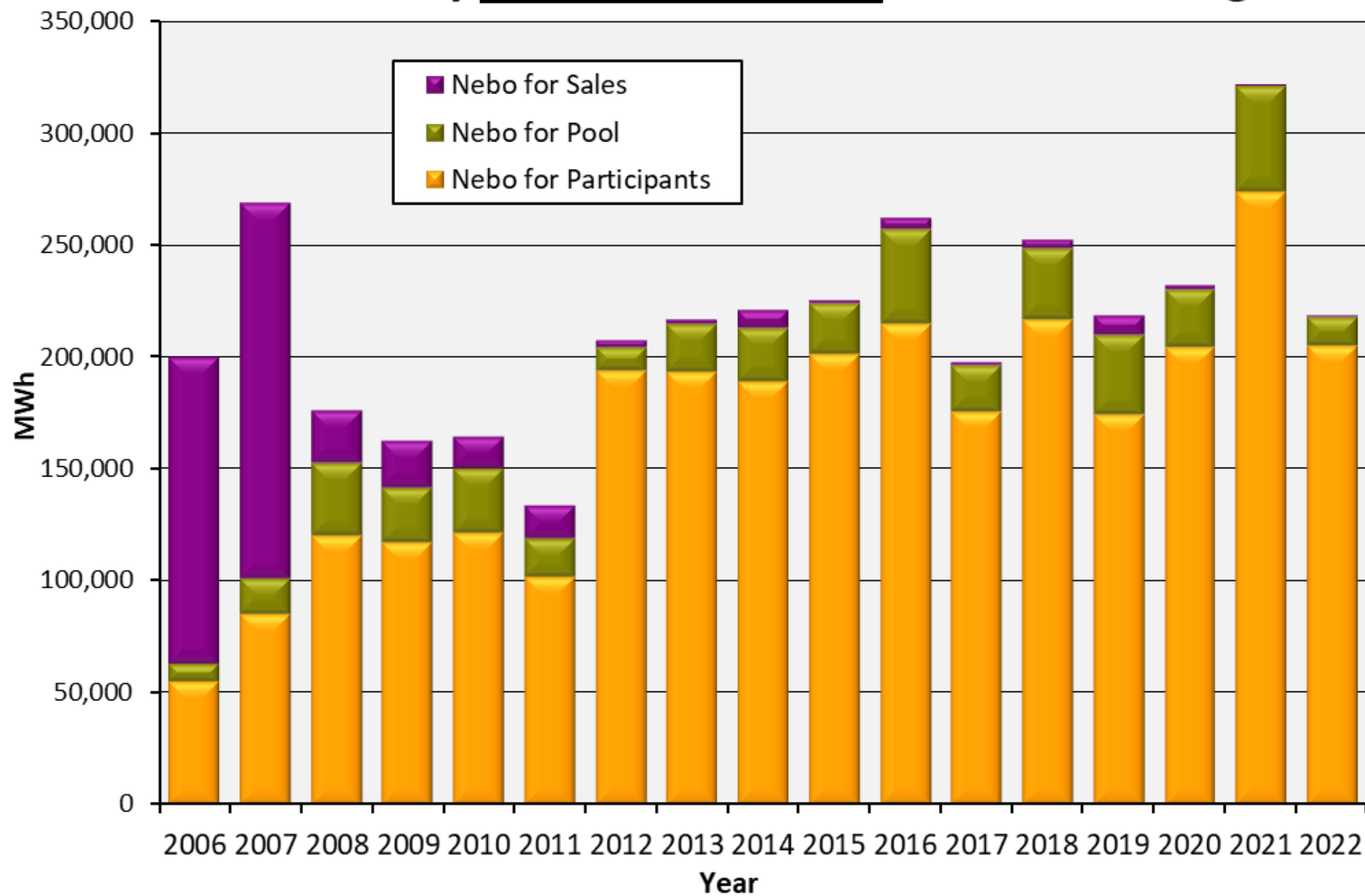
Nebo Average Day MW for Aug-2022



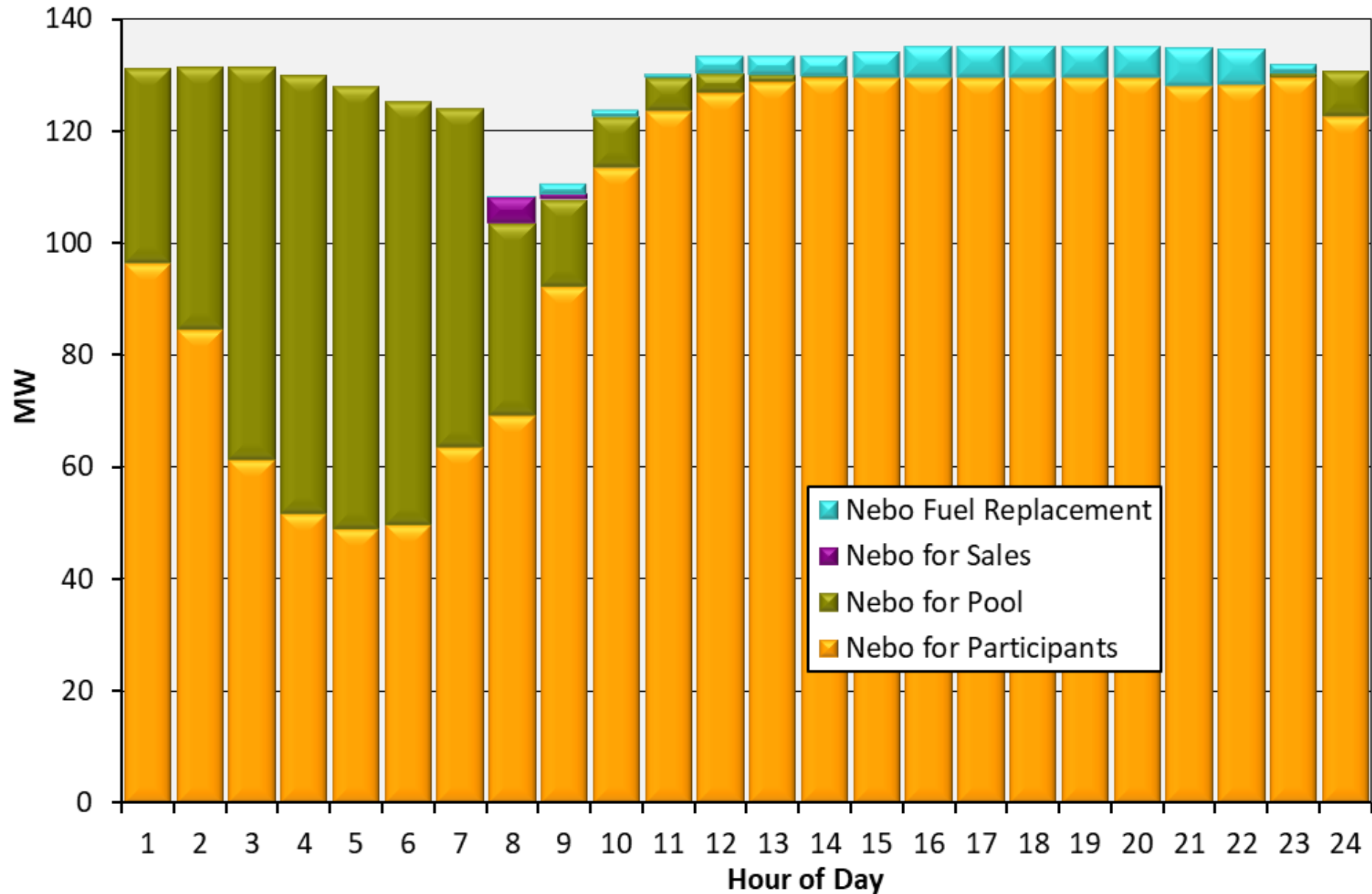
Nebo Average Day MW for Sep-2022



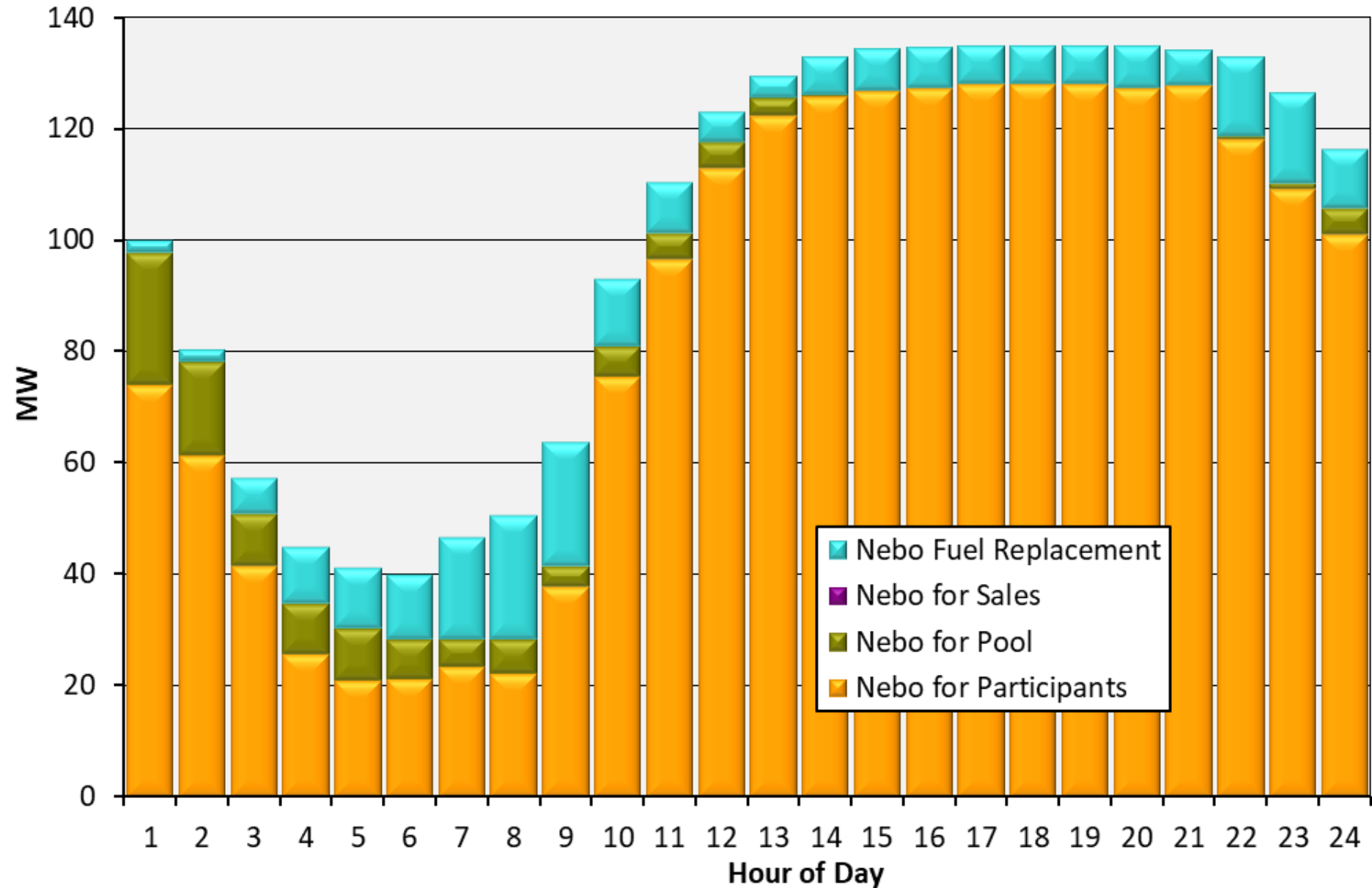
Nebo Yearly June to September Generation Usage



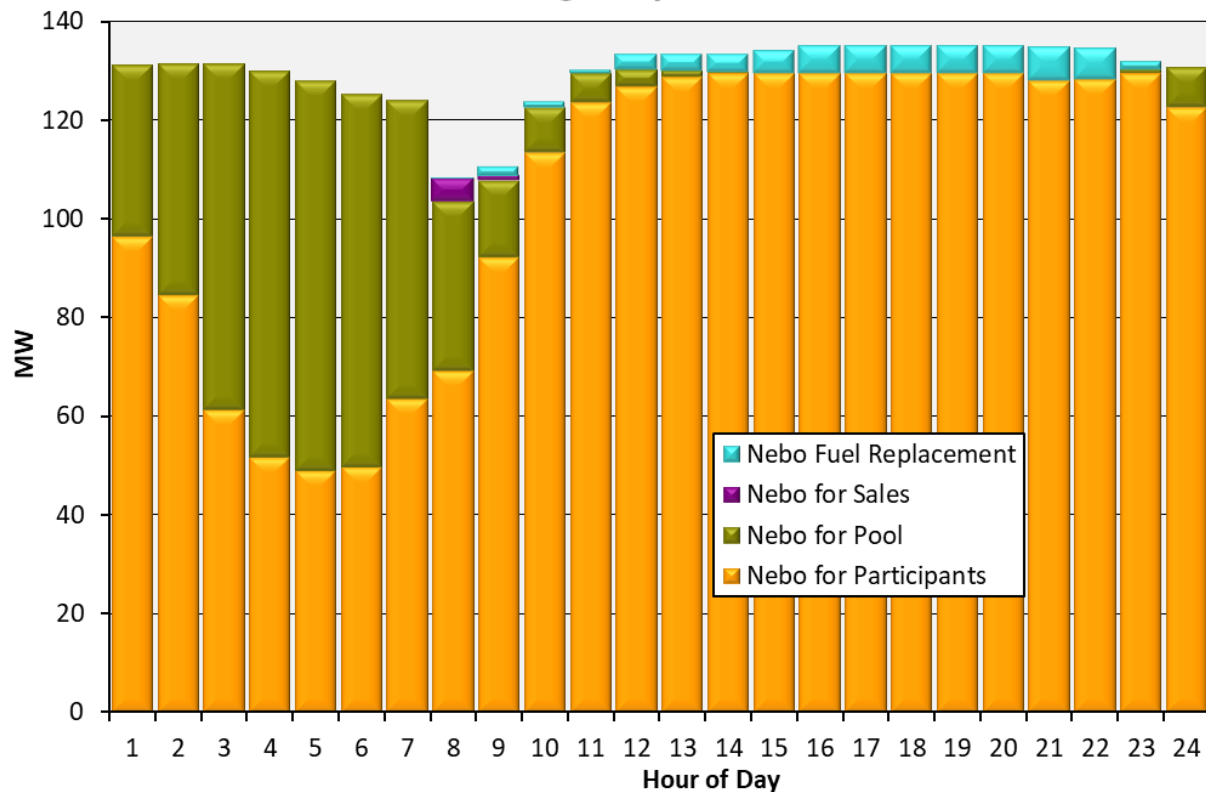
Nebo Average Day MW for Jul-2021



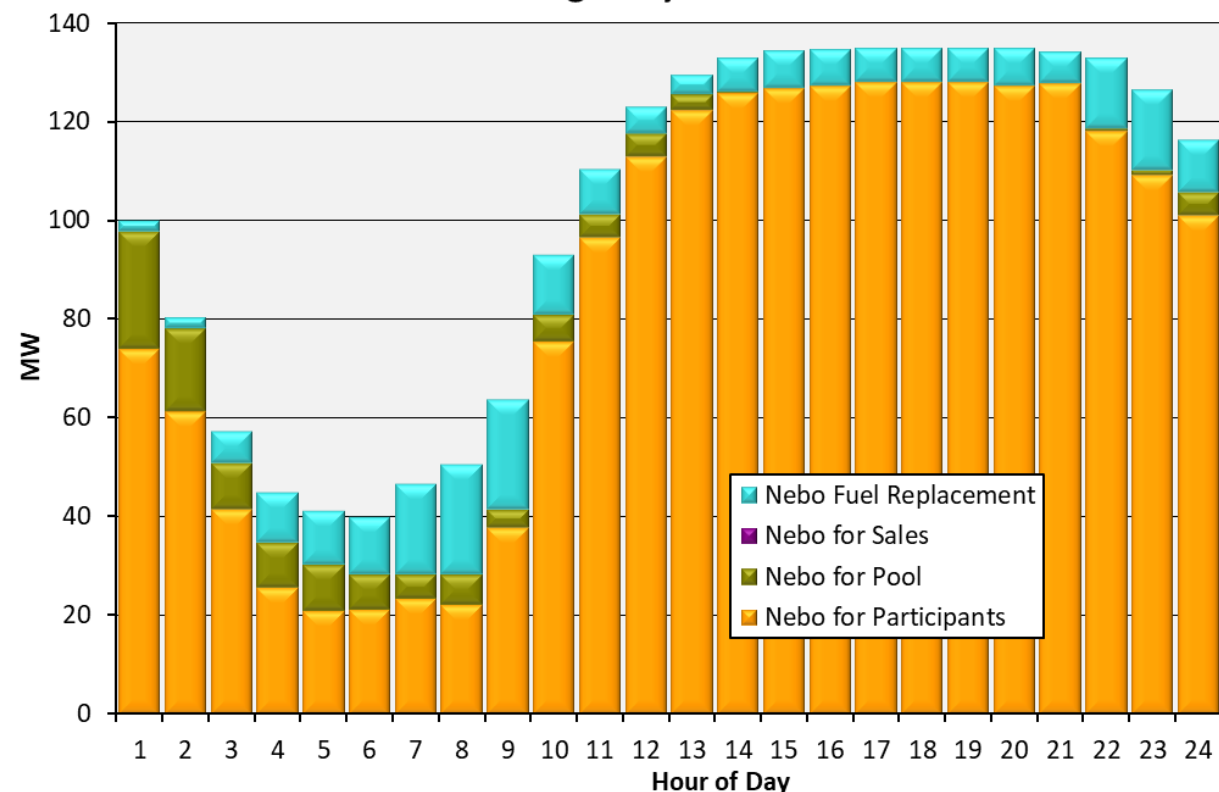
Nebo Average Day MW for Jul-2022



Nebo Average Day MW for Jul-2021

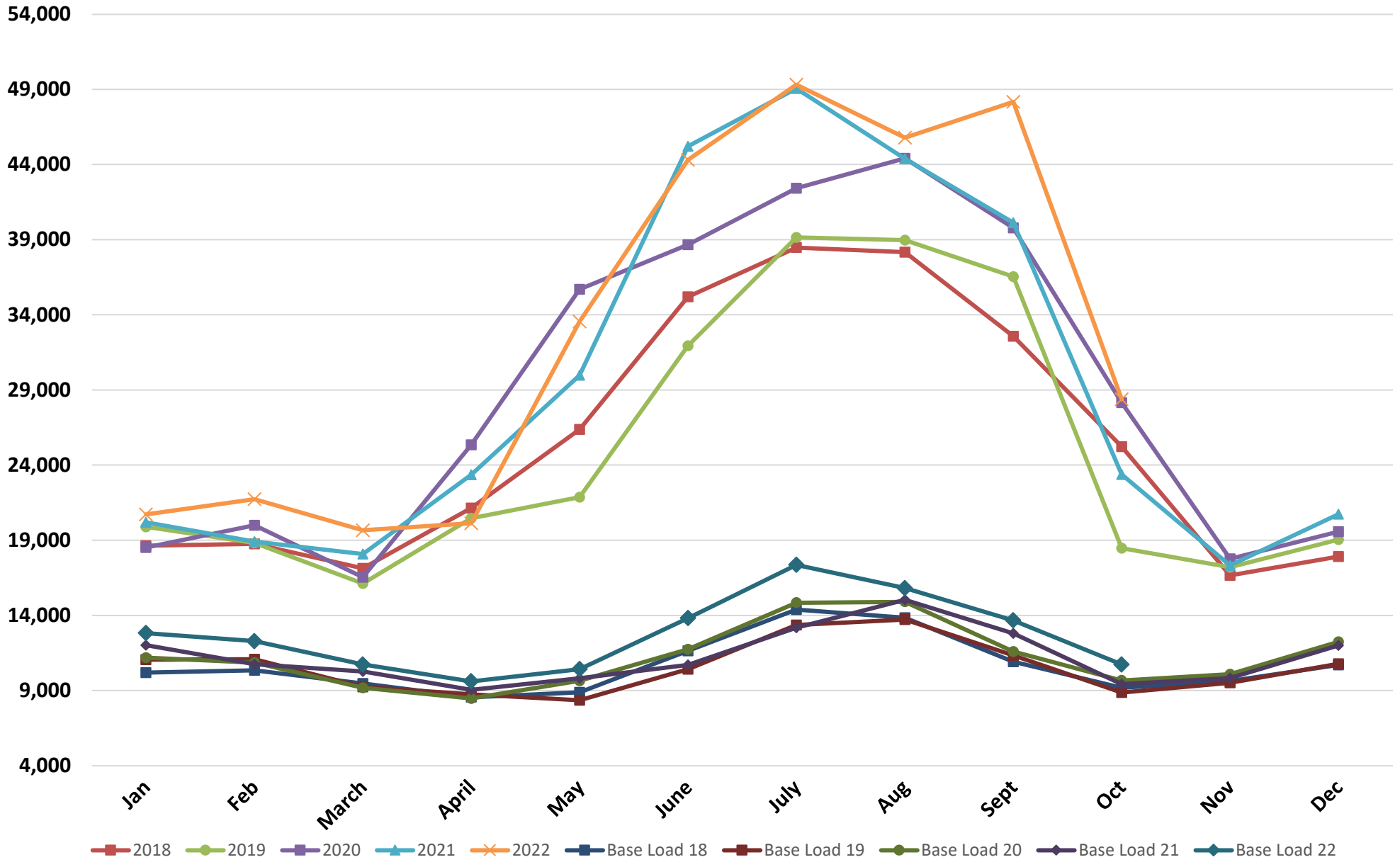


Nebo Average Day MW for Jul-2022

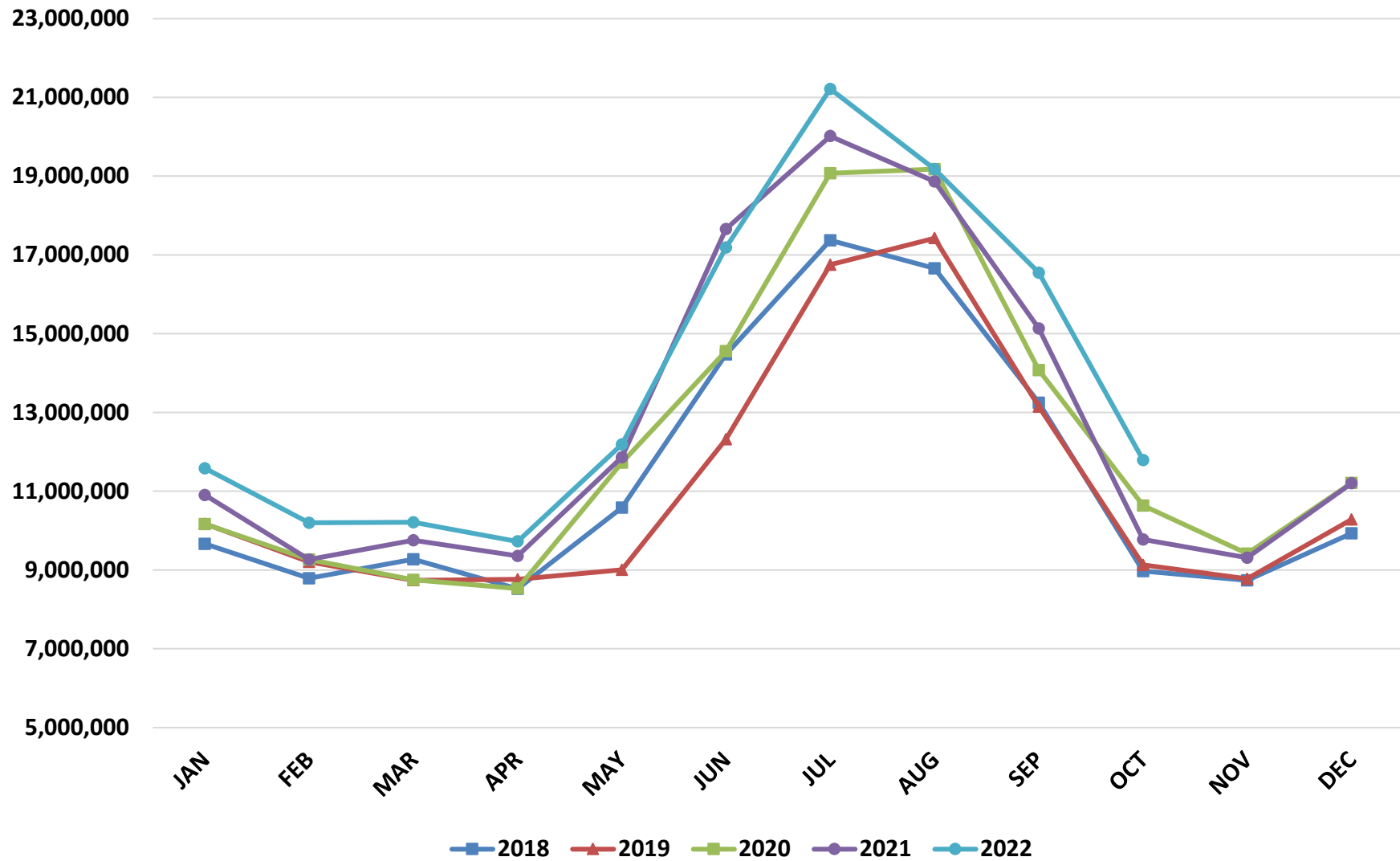


BUDGET

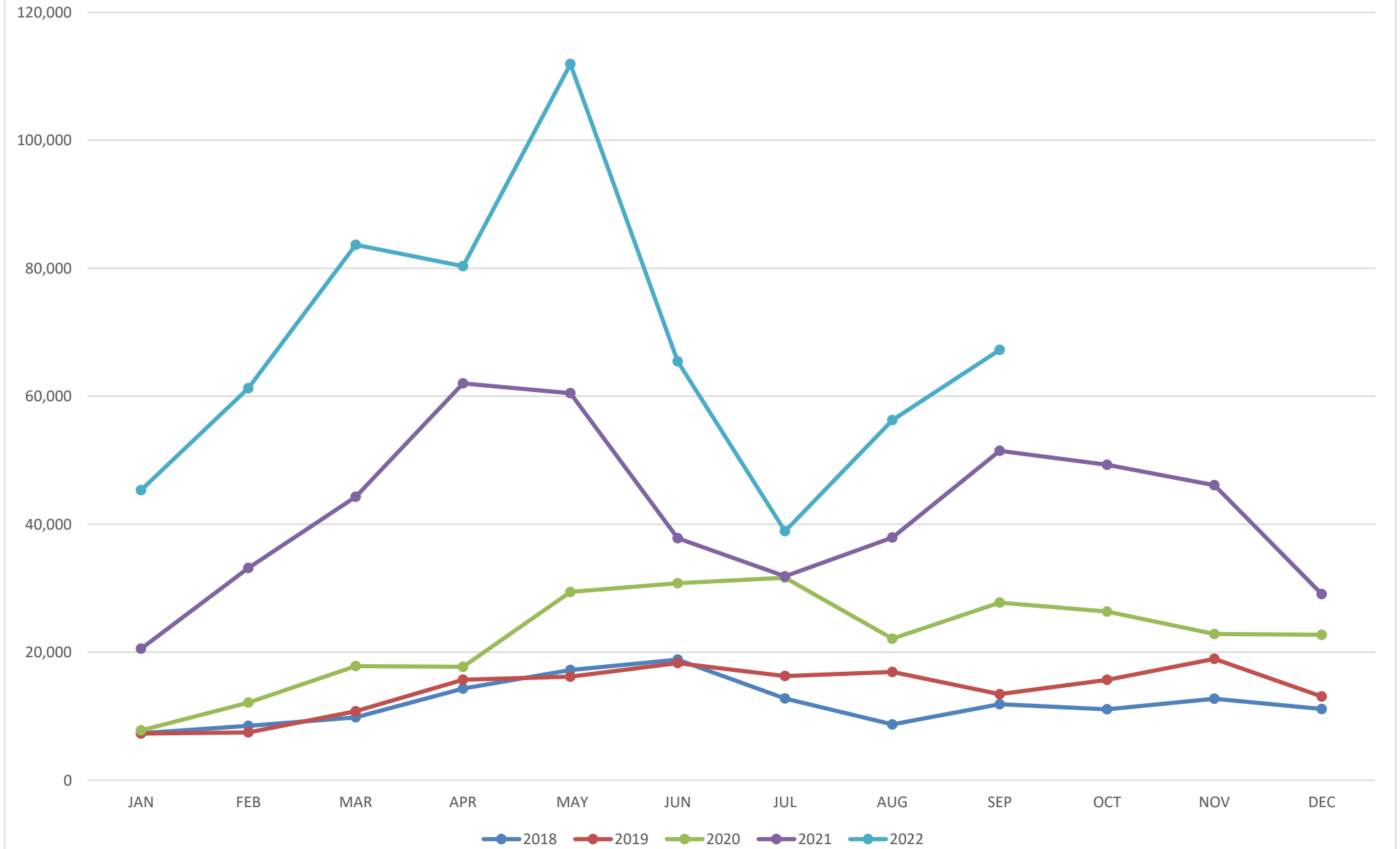
2018 - 2022 KW LOAD



2018 - 2022 KWH LOAD



Solar Kwh



AVERAGE YEARLY POWER PRICES

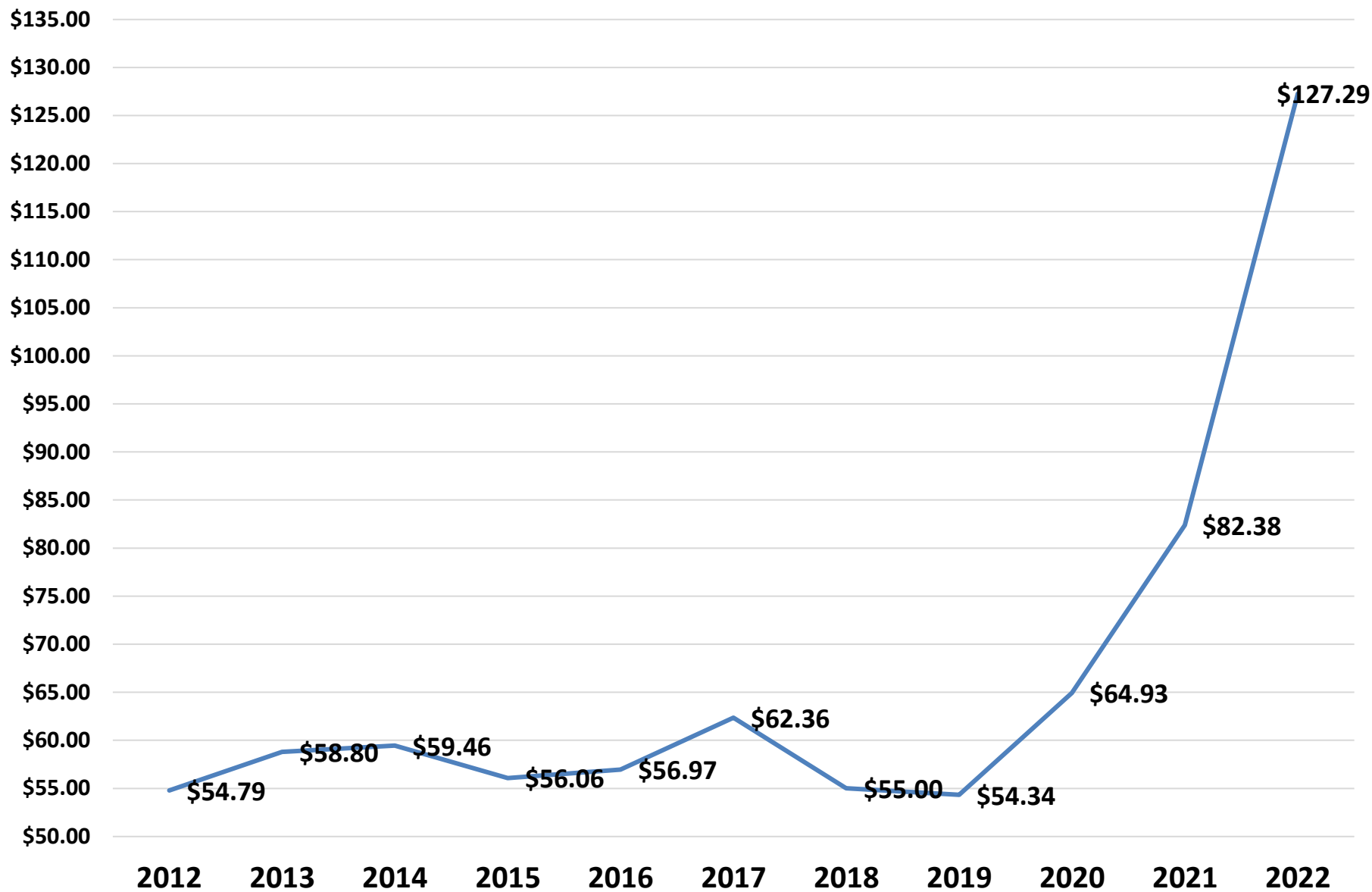
21-22 bdgt amount **\$0.00**
 BDGT Year to Date **\$74.87**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<i>Jan</i>	\$56.66	\$60.76	\$58.36	\$59.86	\$57.87	\$59.07	\$60.62	\$59.75	\$57.76	\$60.14	\$68.25
<i>Feb</i>	\$59.78	\$58.15	\$64.45	\$65.94	\$62.38	\$63.04	\$60.96	\$67.00	\$60.67	\$63.19	\$70.88
<i>Mar</i>	\$57.28	\$63.50	\$60.83	\$62.03	\$61.77	\$60.99	\$60.09	\$65.17	\$64.67	\$63.64	\$67.28
<i>Apr</i>	\$55.43	\$63.77	\$63.75	\$61.88	\$59.71	\$59.49	\$55.02	\$55.44	\$55.92	\$61.86	\$82.63
<i>May</i>	\$53.31	\$60.28	\$61.64	\$64.71	\$65.51	\$60.32	\$58.86	\$58.55	\$58.55	\$59.69	\$72.66
<i>June</i>	\$50.09	\$56.05	\$59.15	\$58.30	\$65.51	\$58.54	\$52.17	\$55.30	\$53.44	\$86.91	\$77.60
<i>Jul</i>	\$51.16	\$55.62	\$56.85	\$56.91	\$56.95	\$58.29	\$67.87	\$54.29	\$55.98	\$81.04	\$85.31
<i>Aug</i>	\$51.57	\$55.49	\$56.84	\$55.27	\$57.67	\$59.00	\$66.55	\$54.58	\$78.40	\$72.03	\$90.89
<i>Sep</i>	\$54.79	\$58.80	\$59.46	\$56.06	\$56.97	\$62.36	\$55.00	\$54.34	\$64.93	\$82.38	\$127.29
<i>Oct</i>	\$62.68	\$60.35	\$61.42	\$56.97	\$59.23	\$59.79	\$59.36	\$59.70	\$62.82	\$75.92	
<i>Nov</i>	\$63.37	\$61.65	\$63.03	\$59.68	\$64.18	\$62.14	\$64.60	\$63.80	\$63.60	\$70.47	
<i>Dec</i>	\$56.02	\$58.37	\$60.91	\$57.90	\$61.51	\$58.80	\$61.61	\$58.55	\$60.33	\$70.07	
<i>Yr Avg</i>	\$56.01	\$59.40	\$60.56	\$59.63	\$60.64	\$60.15	\$60.23	\$58.87	\$61.42	\$70.61	\$82.53
<i>Weighted Avg</i>	\$55.22	\$58.80	\$60.34	\$58.99	\$59.55	\$59.90	\$60.56	\$58.11	\$61.98	\$72.46	\$85.00

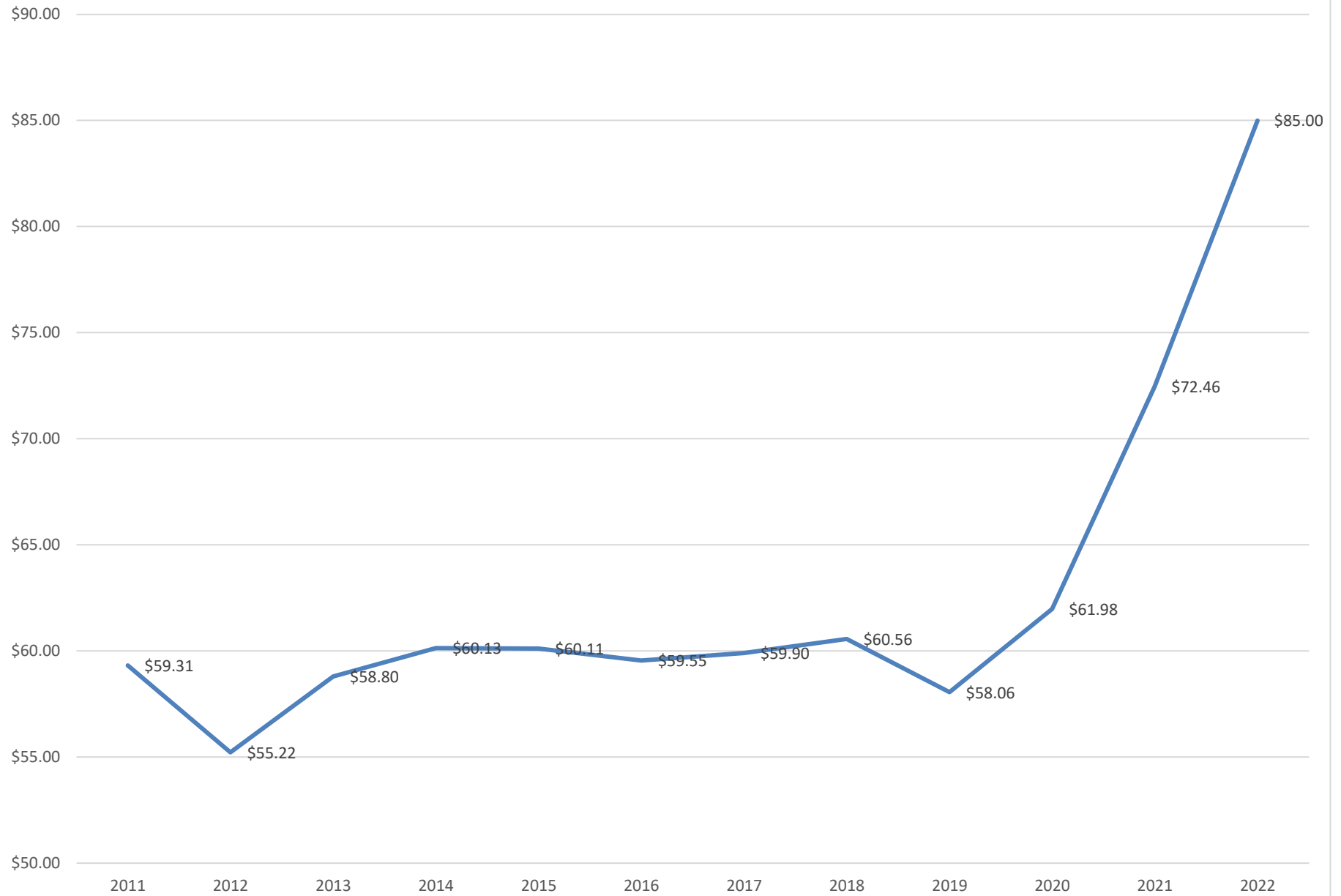
**Cy to
Date**

These figures capture the total cost of power to the power department. The power department uses costs only associated with the purchasing and generation of power and includes debt payments and interest associated with power resources.

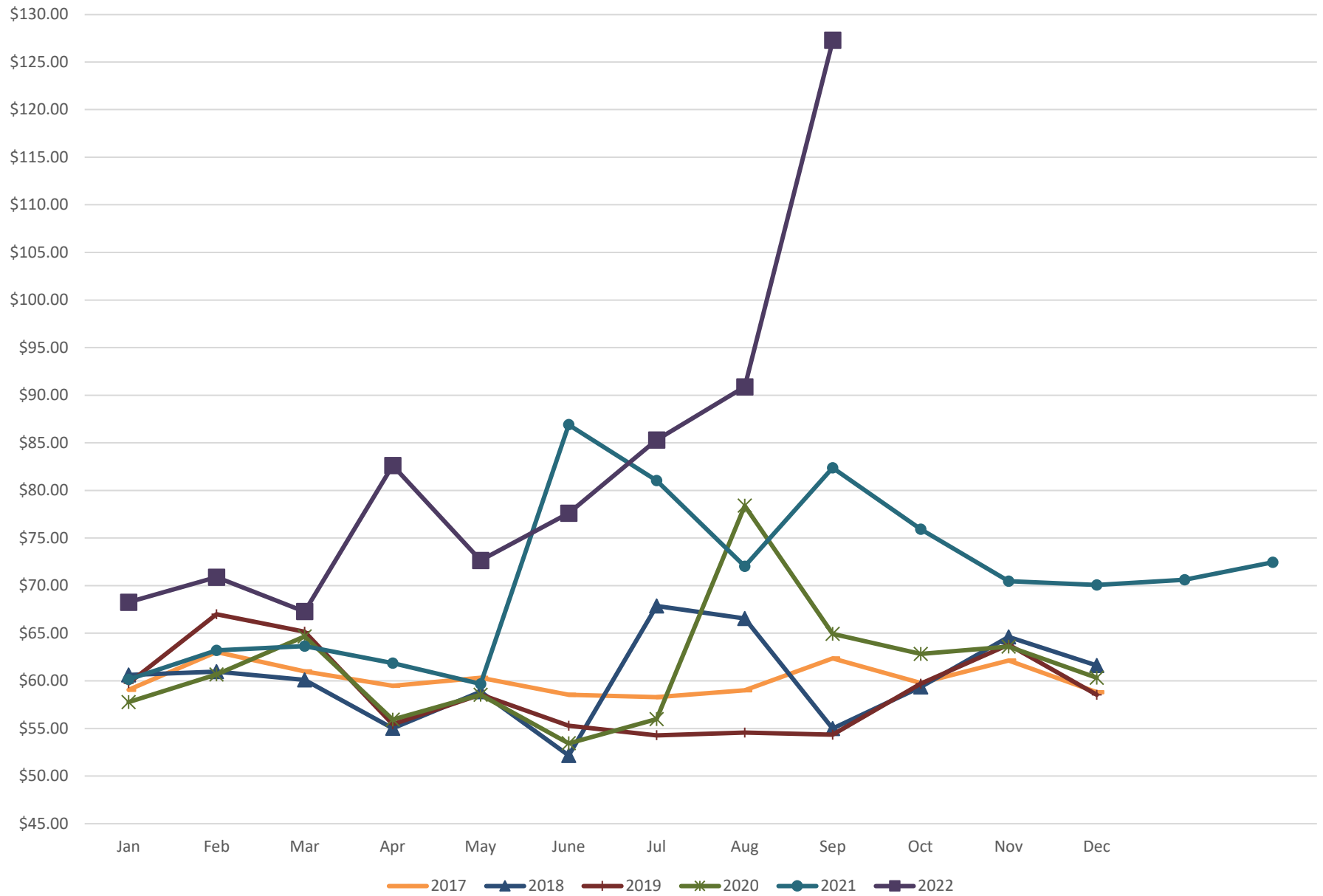
Sep



Weighted Average



Avg Monthly Price (5 Yrs)



Avg Monthly Price

