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

3/1/2023

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 January 2023 and February 2023

**STAFF REPORTS**

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

**BUDGET**

1. Rates

**OLD BUSINESS**

1. Generation Update
2. Solar Update

**NEW BUSINESS**

1. UAMPS Updates
2. Discussion and possible recommendation regarding Sky Ranch
3. Discussion of reacquiring Washington County Fairgrounds infrastructure
4. Discussion and possible decision regarding forward market purchase

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The Hurricane City Power Board met on January 11, 2022, at 3:00 p.m. at the Clifton Wilson Substation on 526 W 600 N.

In attendance were Mac Hall, Jerry Brisk, Pam Humphries, Dave Imlay, Joseph Prete, Charles Reeve, Scott Hughes, Brian Anderson, Michael Ramirez, Jared Ross, Fred Resch, Kaden DeMille, Paige Chapman, Dayton Hall, and Crystal Wright.

Mac Hall welcomed everyone to the meeting; Pam Humphries led the Pledge of Allegiance and Mac Hall offered the prayer. Minor changes to the December 2022 minutes were discussed. After those changes, Pam Humphries motioned to approve minutes from the December 2022 meeting. Dave Imlay seconded the motion. Motion passed unanimously.

**Scott Hughes:** Scott Hughes provided update on employees. There was one phone interview last week and a follow up in-person interview. This candidate has some experience, so we'll see how that turns out. Talmage Taylor will be signing up for the Apprenticeship Program this month. We had an employee meeting with everyone that took a few hours and held a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis. This exercise was a group effort and had department wide participation. Provided a quick update on AMI. We have a grant writer that helped us get the pre-grant qualification submission done on time. He praised Mike Ramirez, Paige Chapman, and Linda Sappington for their efforts in its completion. This grant has the potential to help with up to 50% of costs.

**Budget:** Scott Hughes began presenting the budget information from the packet. Answered questions from the board about the information presented in the graphs. Kaden DeMille discussed the financial health of the Power Department. Discussion about possible solutions to improve position include cutting costs which is difficult when large infrastructure is needed for growth or to raise rates.

**Discussion and possible recommendation of approval of updated Solar Policy:** Michael Ramirez presented information detailing the differences between the existing solar policy and the proposed new policy. Discussed how credits for exported energy would be processed and whether credits would be hard reset at the end of the fiscal year or paid out. Discussed system sizes and compensation for exported energy. Dave Imlay described the base rate as covering operations and the consumption rate should cover your cost to purchase the actual power. He suggested to look at the Utah Financial Services Rate Study that was done ten or so years ago and see if they can look at the base rates for solar rates only to give us recommendations on where we should set that base rate. Joseph Prete asked a question regarding whether large battery storage by the Power Department would be an option to help curb high power prices. Discussion about previous battery storage proposals being much more expensive, but the need to keep an eye on prices as technology advances and prices of batteries come down. Discussion about changes to the three-phase solar policy for system size based on amperage size, compensation for exported energy and export limitations. Jerry Brisk asked about the limit

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before they become governed by the Public Service Commission. We will investigate the answer to that question. Discussion about any specifically stated properties who may be ineligible for solar. Discussion about determining whether to change all solar accounts to the new rates and a discussion about the original grandfathered accounts. The overall direction from the board is that they would like to keep any promise that we made to the original grandfathered accounts. Recommendation to find out exactly what those terms were. Overall, the board feels comfortable with the changes to the solar policy. Recommendation to research the suggestions made during the conversation and to finalize the policy.

**Discussion and possible recommendation regarding additional Generation:** Scott Hughes presented information regarding the purchase of the one additional generator. We previously discussed a multi-unit generation plant. We will begin paying transmission costs upon the addition of any new generator unit. Up to this point, we have been grandfathered in without having to pay transmission costs on our generated energy. Joseph Prete asked if the addition of the transmission costs make it worth purchasing the additional generator unit. Scott Hughes provided the estimated cost provided by UAMPS we would have paid for generated energy this last summer. Discussion continued regarding the pros and cons of purchasing additional generation. Mac Hall wrapped up the discussion by stating the board recommends moving forward with Generator #9. Our plan is to proceed with that direction. Dave made motion to proceed with purchase of Generator #9 and Jerry seconded the motion. Motion passed unanimously. Dave Imlay suggested to contact UAMPS to find out about financing the purchase of Generator #9 through them.

**Discussion and possible recommendation of approval of updated Interruptible Commercial Rate:** Scott Hughes presented the details of the adjusted Alternative Large Commercial Rate which would replace the previously approved Alternative Commercial Rate. The intent with this rate was to clarify some vague language and to limit financial exposure. It was discovered the wrong Exhibit was presented and included in the City Council packet when it was approved. It was missing the consequences for violation that were on the Exhibit that was approved and discussed at Power Board. The discussion regarding consequences was verified in audio and minutes for both meetings. This rate was a negotiation between us and the applicable customer the original rate was designed for. Dave Imlay made a motion to accept Exhibit A – Alternative Large Commercial Rate. Pam Humphries seconded the motion. Motion passed unanimously.

**Commercial EV Charging Stations Rate Discussion:** Scott Hughes presented information about what businesses are charging for the commercial EV chargers at their locations. He is suggesting creating a rate specifically for EV charging locations due to the impact they have on infrastructure. It creates a major load in one area and on one circuit. We are looking at what to charge for a base rate, demand rate, and high usage. Dave Imlay suggested contacting Utah Financial Services because they have probably already discussed this issue with other utilities. There is more work to be done in research on this.

**UAMPS Updates:** Scott Hughes stated all the information is contained in the packet. If there are no questions we will move onto the next section of the meeting. There were no questions.

Pam Humphries made a motion to move into closed session. Joseph Prete seconded the motion. Motion passed unanimously at 5:25 pm. Upon returning from closed session at 6:00 pm, Dave Imlay made a motion to recommend continuing participation in the Carbon Free Power Project (CFPP) at 20 MW for the next year. Jerry Brisk seconded the motion. Motion passed unanimously. Power Board adjourned at 6:05 p.m. The next Power Board Meeting is scheduled for February 1, 2023, at 3:00 p.m.

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**Power Board**
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Joseph Prete
Charles Reeve

The Hurricane City Power Board met on February 1, 2023, at 3:00 p.m. at the Clifton Wilson Substation on 526 W 600 N.

In attendance were Jerry Brisk, Pam Humphries, Dave Imlay, Joseph Prete, Charles Reeve, Scott Hughes, Brian Anderson, Michael Ramirez, Jared Ross, and Crystal Wright.

Charles Reeve welcomed everyone to the meeting; Pam Humphries led the Pledge of Allegiance and Jerry Brisk offered the prayer.

**Scott Hughes:** Scott Hughes provided an update on employees. We had an interview that was promising, but the employee has declined to proceed through the hiring process. One of our employees had an injury while helping Water and Streets pick up a building for the Recreation Department. There was a load shift and while they were adjusting the load, he injured his leg. He is at work and doing fairly well. City Council update stated that Generator #9 was postponed for last agenda but will be on the council agenda for tomorrow. A City Council decision regarding CFPP will be made two weeks from tomorrow. Provided an update regarding a power outage that occurred on January 31, 2023. Rocky Mountain Power's feed from Windy Ridge is currently feeding our load from Clifton Wilson substation. Their system went down which also took that substation down. Joseph Prete asked if there was a way we could have avoided or reduced the outage. Scott Hughes replied that it was necessary to go onto Rocky Mountain Power's feed to complete the 600 N Phase 3A project. We switched back onto their system this morning to continue work on the project today. We are discussing how to expose us as little as possible while we work on that project. We will continue to have discussions on how best to proceed.

**Brian Anderson:** Brian Anderson reported that Christmas decorations are down. Most of the work we've been doing has been on the 600 N Phase 3A project. We've been working on digging the holes. We hired a drilling company to dig 3 of the holes. They have had problems with the holes caving in as they're drilling, so they've had to fill them with cement and then return to drilling. We are getting our steel poles sooner than originally quoted which will help this project timeline. As soon as this project is complete, we will switch over to the 1150 W project. We will be reinsulating this line to heat up the 69kv transmission down to the Three Falls Substation. We're currently working on purchasing easements from 1300 S to 3000 S along 1150 W. Joseph Prete asked when the last time we received an update from the person working on acquiring those easements. Scott Hughes reported there was an appraisal that had to be completed before he could start working on that and it hadn't been completed yet. We're focusing on the section between 1300 S and 3000 S.

**Mike Ramirez:** Mike Ramirez reported that we have submitted a pre-qualification grant for some money to help contribute to the cost of implementing the AMI system. Sometime in February we should be notified whether we qualify to submit for the actual grant.

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**Jared Ross:** Jared Ross provided an update regarding Three Falls Substation. The block wall has come along. They have dug out the space where the first transformer pad will be poured. Materials are starting to show up. He reported on some repairs they have been working on. Working on a small regulator that they have repaired and is ready to go back into service. The regulator that was found to have an error as part of the recent outage has been taken out of service. They have been working on repairing some damage to buckets that we borrowed from the Water Department. The substation employees have worked hard to make equipment improvements to make the equipment better than when we first borrowed it.

**Budget:** Scott Hughes began presenting the budget information from the packet. Answered questions from the board about the information presented in the graphs. Discussion about the sharp increases for power prices for the previous two years. Joseph Prete said from 2020 to 2021 was an increase in power cost of 16.9% and 2021 to 2022 an increase of 25.86%. Combined the total increase was 47.14%. Compared to the rate increases during the same time frame of 4% and 15% for a total of 19%. We are still short 28.14% rates vs power cost increase. He felt that would be helpful information for the council to know. A few charts show annual information regarding year-end recording of energy losses.

**Discussion regarding additional Generation:** Scott Hughes provided update regarding the potential purchase of additional generators beyond Generator #9 that had been recommended for approval at the last board meeting. Generator #9 will be proposed for approval at City Council meeting tomorrow. Joseph Prete asked for a cost benefit analysis for Generator #9 to be presented at City Council meeting for assistance in them deciding. He also wanted to know about the cost of the transmission we would be paying for the additional generator. UAMPS had provided information showing that as of November 2022, we would have paid approximately $63,000 to Rocky Mountain Power for transmission during the 2022 generator run. Based on our estimated savings of $700,000 this past season, this represents approximately a 10% cost. The question was asked if the generators have paid for themselves and what the ratio might be of cost vs. savings if not. Dave Imlay replied that diesels have been paid for, but natural gas is probably a different story. Without knowing exact numbers, he stated we may be upside down in those. It's hard to quantify because we didn't have to make other purchases based on the availability of that generation. If we did not have them, we could have had to make large cost purchases for block power. We didn't have to make those decisions because we had the generation available. Scott Hughes presented another consideration of how long the generators themselves are in service. The longer they're in use, the longer we continue to save, and the cost of the dollar for the original purchases of the units also need to be taken into consideration. Future projected loads and future projected prices will also be helpful in making these decisions. Scott Hughes stated he would like to decide regarding purchasing the additional generators by next Power Board meeting. He stated if there is information or data the board would like to see that they can reach out and request that prior to that meeting so we can gather that and have it ready for next board meeting. Scott Hughes reported that he has been in contact with a natural gas broker to research the potential of availability and pricing. There will also be a Natural Gas project meeting with UAMPS this next month. We have two potential locations in mind to investigate. Charles Reeve shared information about a potential water project that Washington County Water Conservancy District is looking at. He'd like to see us investigate that project and even discuss the possibility of UAMPS getting involved with it.

**Commercial EV Charging Stations Discussion:** Scott Hughes briefly discussed we are working on writing policy with input from the Distributed Energy Resources (DER) Subcommittee. Not much more to report in the sake of time.

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**UAMPS Updates:** Scott Hughes provided slides presented at the last UAMPS board meetings. Breakdown of UAMPS resources for 2022 and projection of forecasted resources for 2023. Presented graph showing the volatility of markets throughout the US and showing it's not just UAMPS or Western US markets that are seeing high market volatility. Information regarding historical and forward Northwest and Southwest prices. Information provided regarding Smart Energy programs and Steel Solar update. Pam Humphries stated that she would like to see us promote the Smart Energy programs better. We will find out about putting some information on the bill, online, and promoting it on social media platforms. Steel Solar will be asking us in the future what we want to do with our Renewable Energy Credits (REC's). We receive 1 REC per 1 MW. We are signed up for 2.6 MW. These REC's can be sold or used to provide renewable energy for customers. They're worth more money to sell them before they're produced. They're not asking for a decision yet, but he wanted the board to think about how we want to handle those REC's so we can make that decision when the time comes. Scott Hughes showed a graph showing our firm resources and their predicted end dates. He will continue working on it to present again to show how much of our portfolio each resource represents.

The Power Board adjourned at 5:10 p.m. The next Power Board Meeting is scheduled for March 1, 2023, at 3:00 p.m.

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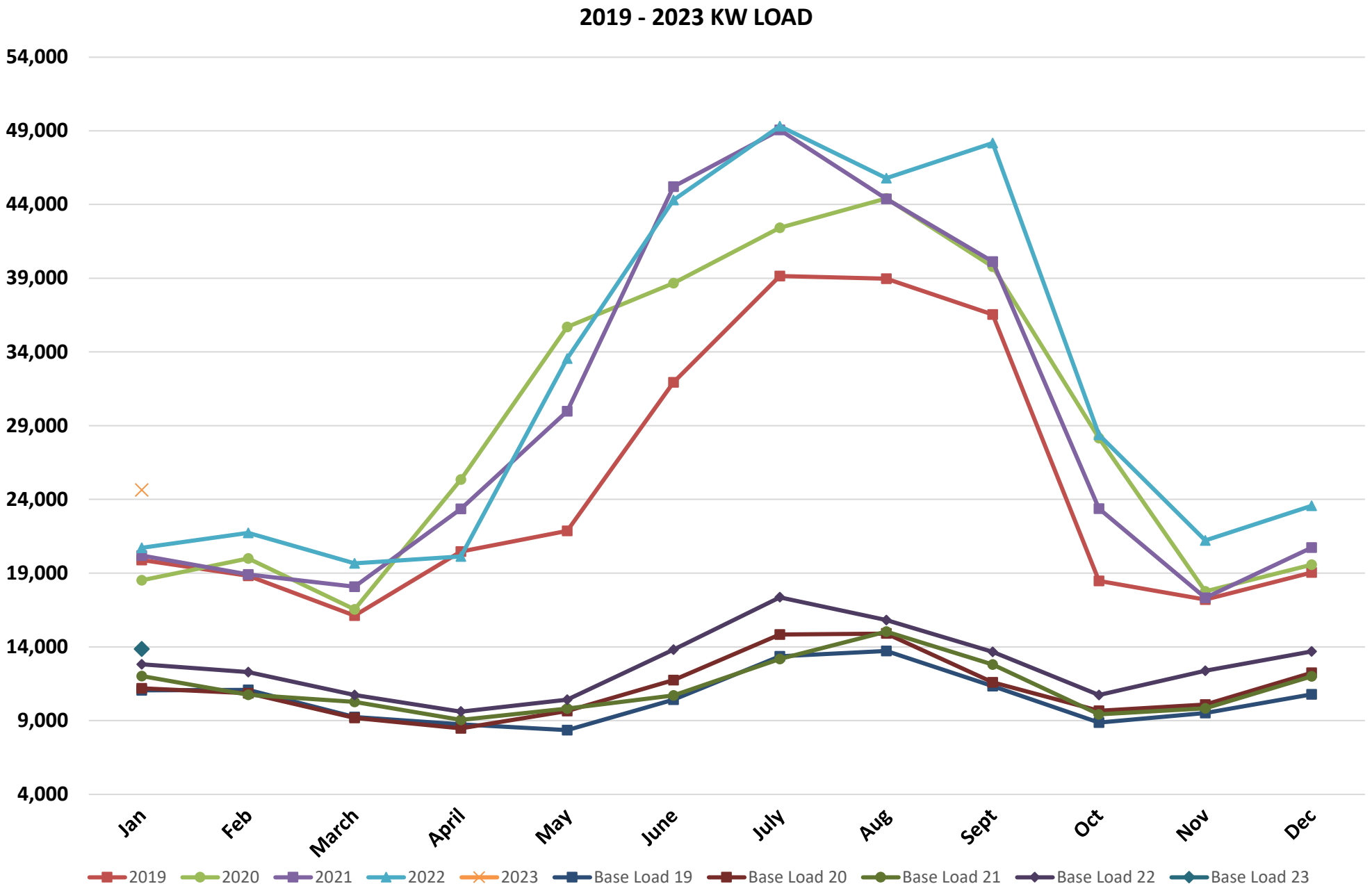
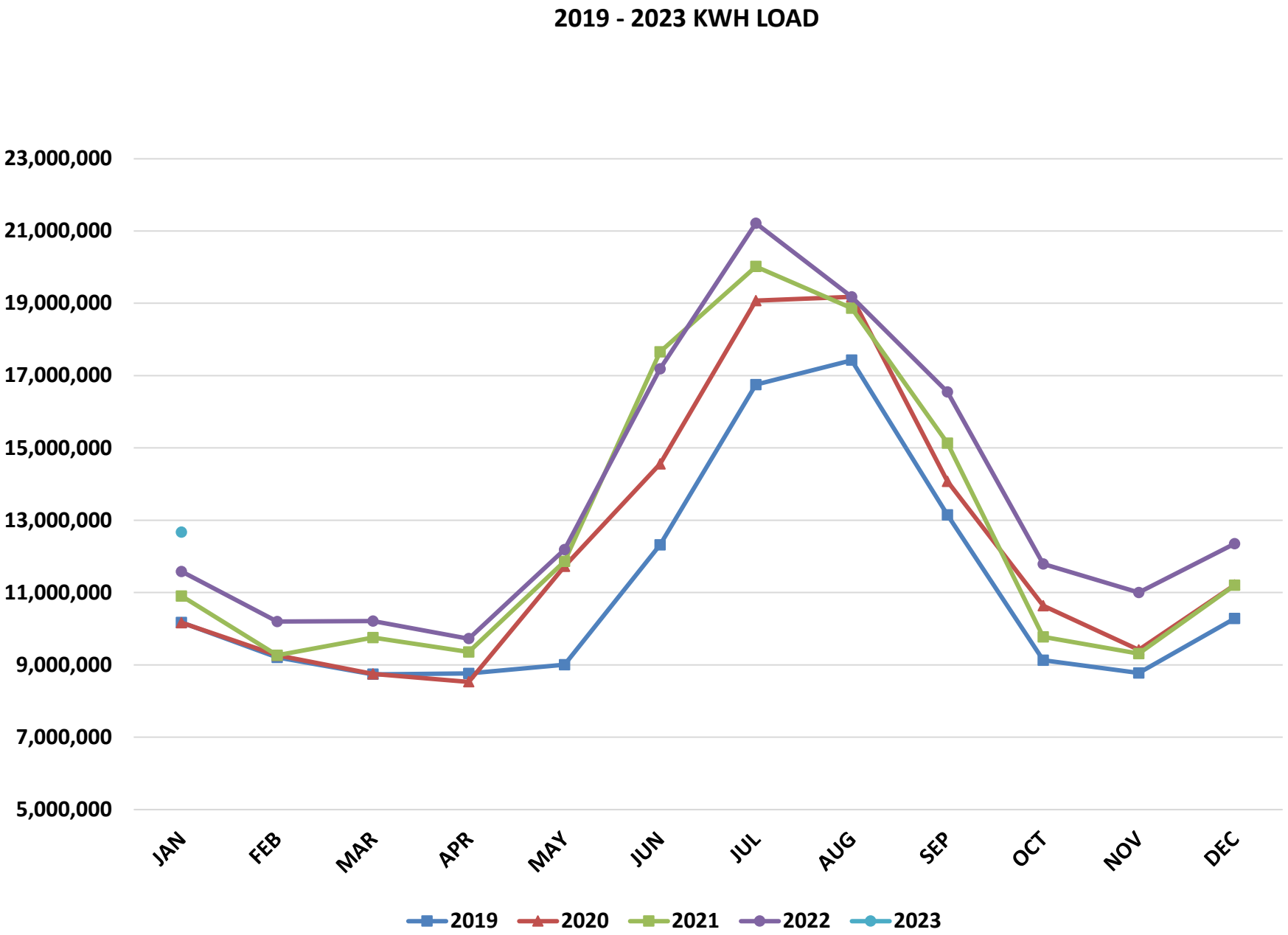
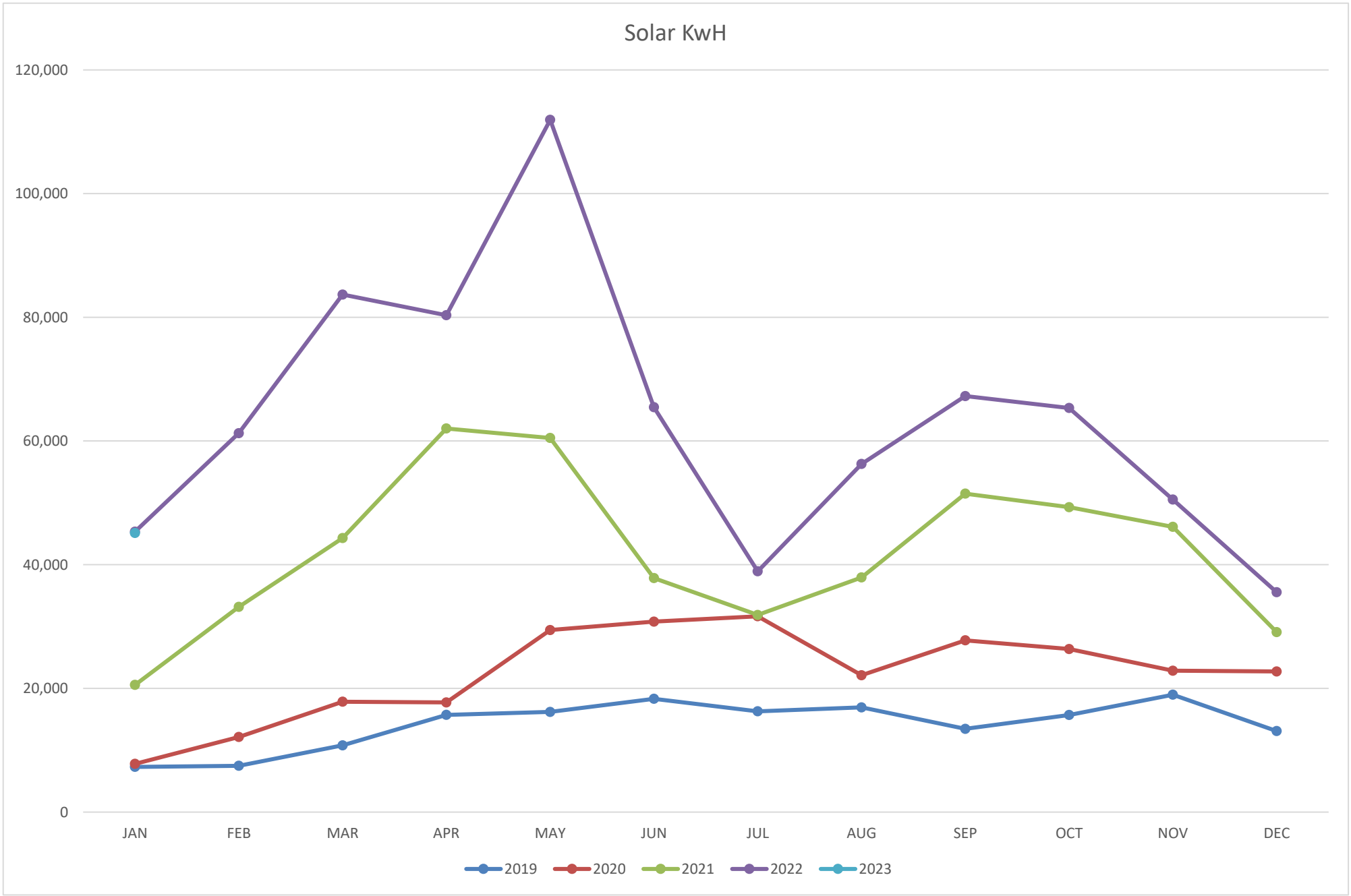
# BUDGET


2019 - 2023 KW LOAD
54,000
49,000
44,000
39,000
34,000
29,000
24,000
19,000
14,000
9,000
4,000
Jan
Feb
March
April
May
June
July
Aug
Sept
Oct
Nov
Dec
2019
2020
2021
2022
2023
Base Load 19
Base Load 20
Base Load 21
Base Load 22
Base Load 23


2019 - 2023 KWH LOAD
23,000,000
21,000,000
19,000,000
17,000,000
15,000,000
13,000,000
11,000,000
9,000,000
7,000,000
5,000,000
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
2019
2020
2021
2022
2023


Solar KwH
120,000
100,000
80,000
60,000
40,000
20,000
0
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
2019
2020
2021
2022
2023

# AVERAGE YEARLY POWER PRICES

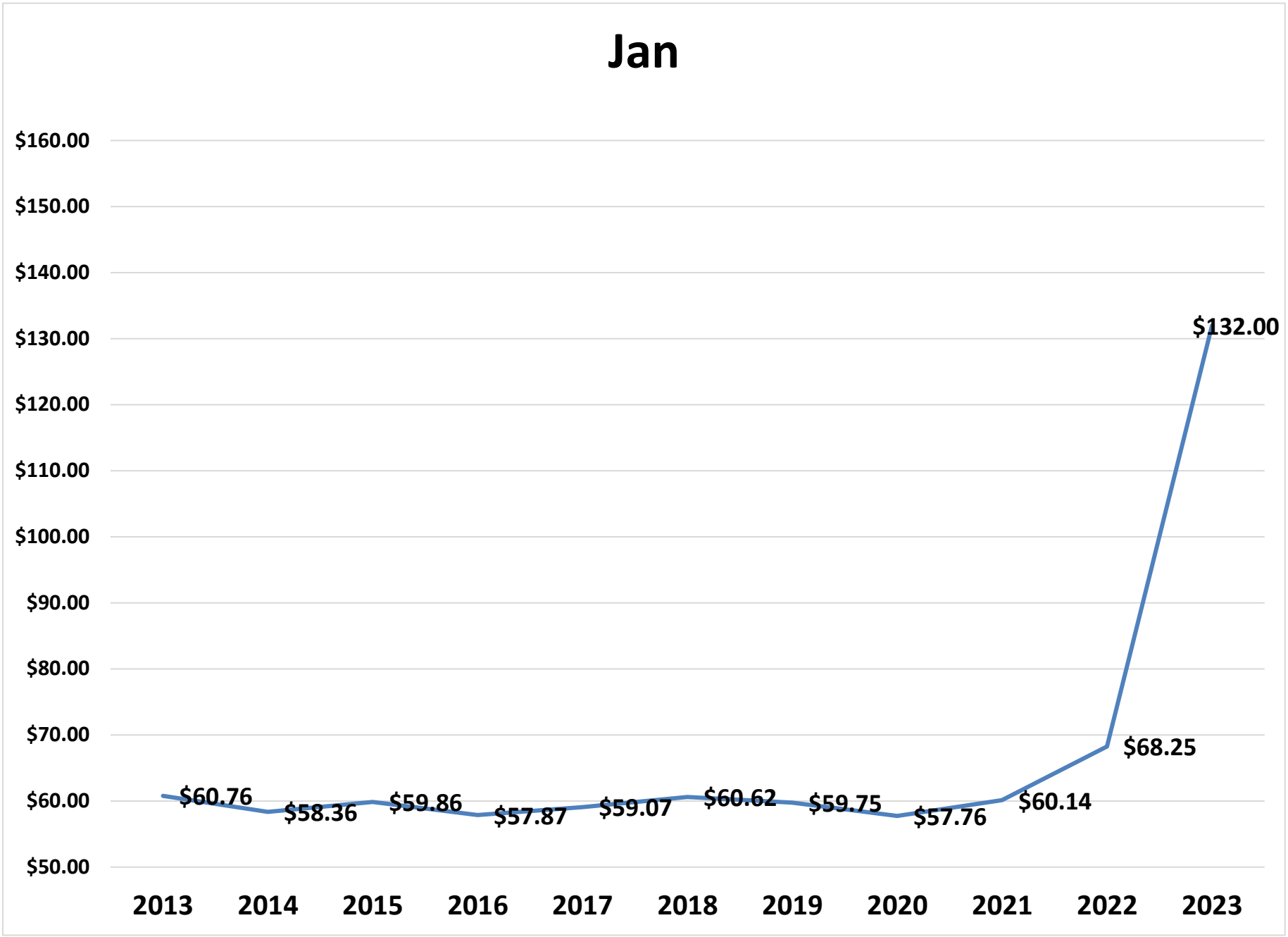
22-23 bdgt amount **$0.00**

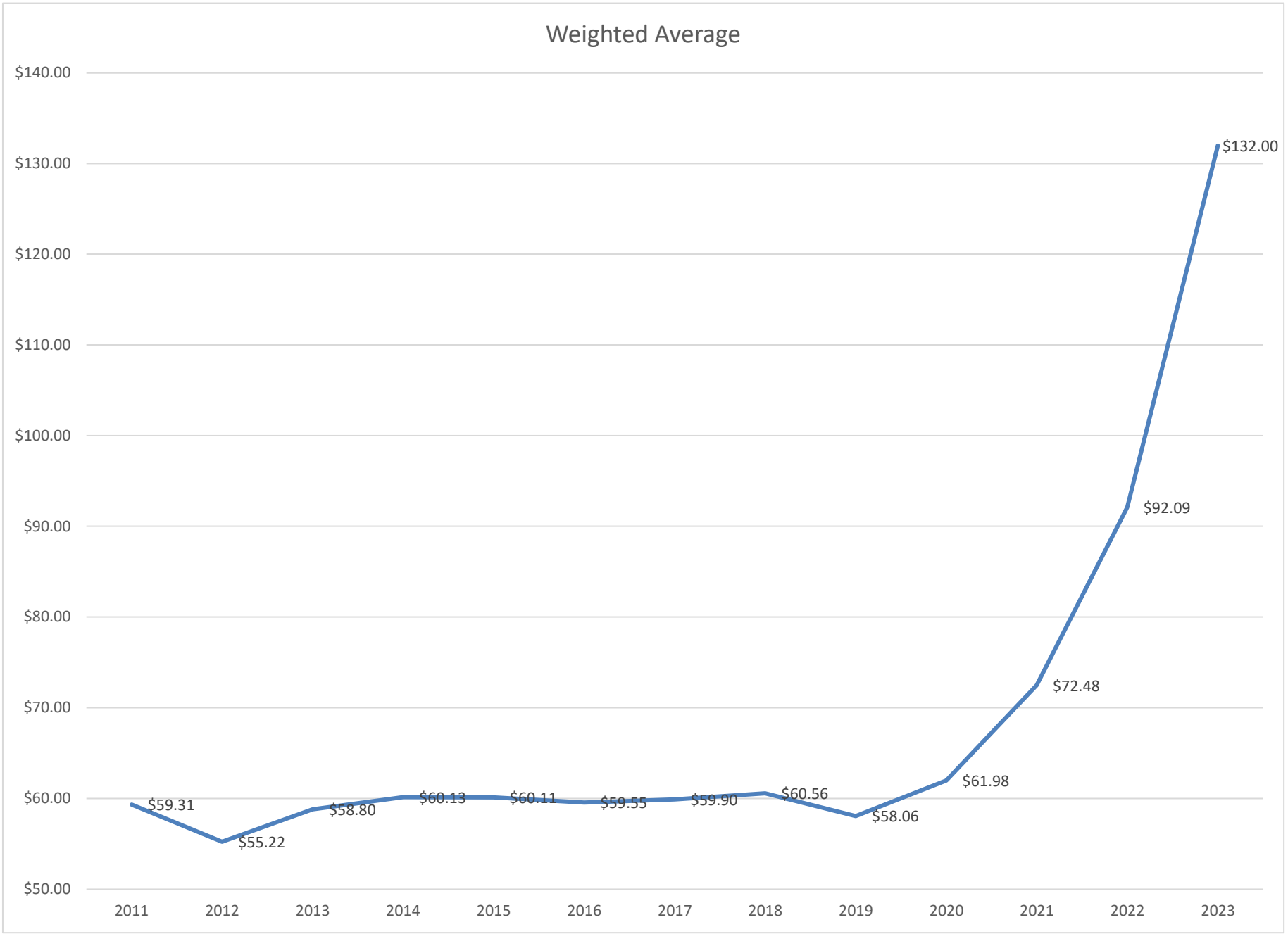
BDGT Year to Date **$109.56**

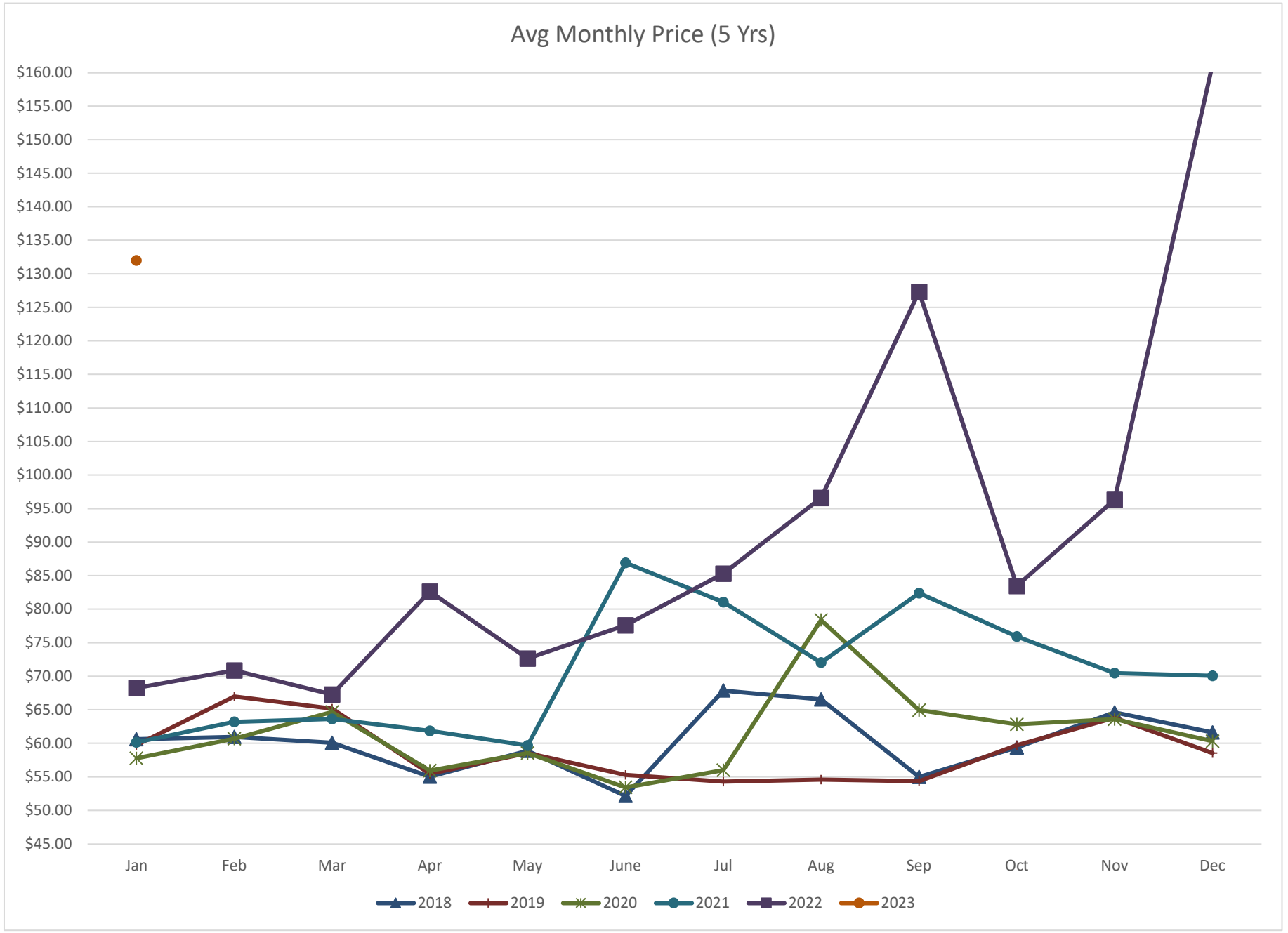
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Jan* | $56.66 | $60.76 | $58.36 | $59.86 | $57.87 | $59.07 | $60.62 | $59.75 | $57.76 | $60.14 | $68.25 | $132.00 |
| *Feb* | $59.78 | $58.15 | $64.45 | $65.94 | $62.38 | $63.04 | $60.96 | $67.00 | $60.67 | $63.19 | $70.88 | |
| *Mar* | $57.28 | $63.50 | $60.83 | $62.03 | $61.77 | $60.99 | $60.09 | $65.17 | $64.67 | $63.64 | $67.28 | |
| *Apr* | $55.43 | $63.77 | $63.75 | $61.88 | $59.71 | $59.49 | $55.02 | $55.44 | $55.92 | $61.86 | $82.63 | |
| *May* | $53.31 | $60.28 | $61.64 | $64.71 | $65.51 | $60.32 | $58.86 | $58.55 | $58.55 | $59.69 | $72.66 | |
| *June* | $50.09 | $56.05 | $59.15 | $58.30 | $65.51 | $58.54 | $52.17 | $55.30 | $53.44 | $86.91 | $77.60 | |
| *Jul* | $51.16 | $55.62 | $56.85 | $56.91 | $56.95 | $58.29 | $67.87 | $54.29 | $55.98 | $81.04 | $85.31 | |
| *Aug* | $51.57 | $55.49 | $56.84 | $55.27 | $57.67 | $59.00 | $66.55 | $54.58 | $78.40 | $72.03 | $96.60 | |
| *Sep* | $54.79 | $58.80 | $59.46 | $56.06 | $56.97 | $62.36 | $55.00 | $54.34 | $64.93 | $82.38 | $127.29 | |
| *Oct* | $62.68 | $60.35 | $61.42 | $56.97 | $59.23 | $59.79 | $59.36 | $59.70 | $62.82 | $75.92 | $83.45 | |
| *Nov* | $63.37 | $61.65 | $63.03 | $59.68 | $64.18 | $62.14 | $64.60 | $63.80 | $63.60 | $70.47 | $96.34 | |
| *Dec* | $56.02 | $58.37 | $60.91 | $57.90 | $61.51 | $58.80 | $61.61 | $58.55 | $60.33 | $70.07 | $161.27 | |
| *Yr Avg* | $56.01 | $59.40 | $60.56 | $59.63 | $60.64 | $60.15 | $60.23 | $58.87 | $61.42 | $70.61 | $90.80 | $132.00 |
| *Weighted Avg* | $55.22 | $58.80 | $60.34 | $58.99 | $59.55 | $59.90 | $60.56 | $58.11 | $61.98 | $72.46 | $92.09 | $132.00 |

*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.*


Jan
$160.00
$150.00
$140.00
$130.00
$120.00
$110.00
$100.00
$90.00
$80.00
$70.00
$60.00
$50.00
$60.76
$58.36
$59.86
$57.87
$59.07
$60.62
$59.75
$57.76
$60.14
$68.25
$132.00
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


Weighted Average
$140.00
$130.00
$120.00
$110.00
$100.00
$90.00
$80.00
$70.00
$60.00
$50.00
$59.31
$55.22
$58.80
$60.13
$60.11
$59.55
$59.90
$60.56
$58.06
$61.98
$72.48
$92.09
$132.00
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


Avg Monthly Price (5 Yrs)
$160.00
$155.00
$150.00
$145.00
$140.00
$135.00
$130.00
$125.00
$120.00
$115.00
$110.00
$105.00
$100.00
$95.00
$90.00
$85.00
$80.00
$75.00
$70.00
$65.00
$60.00
$55.00
$50.00
$45.00
Jan
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2018
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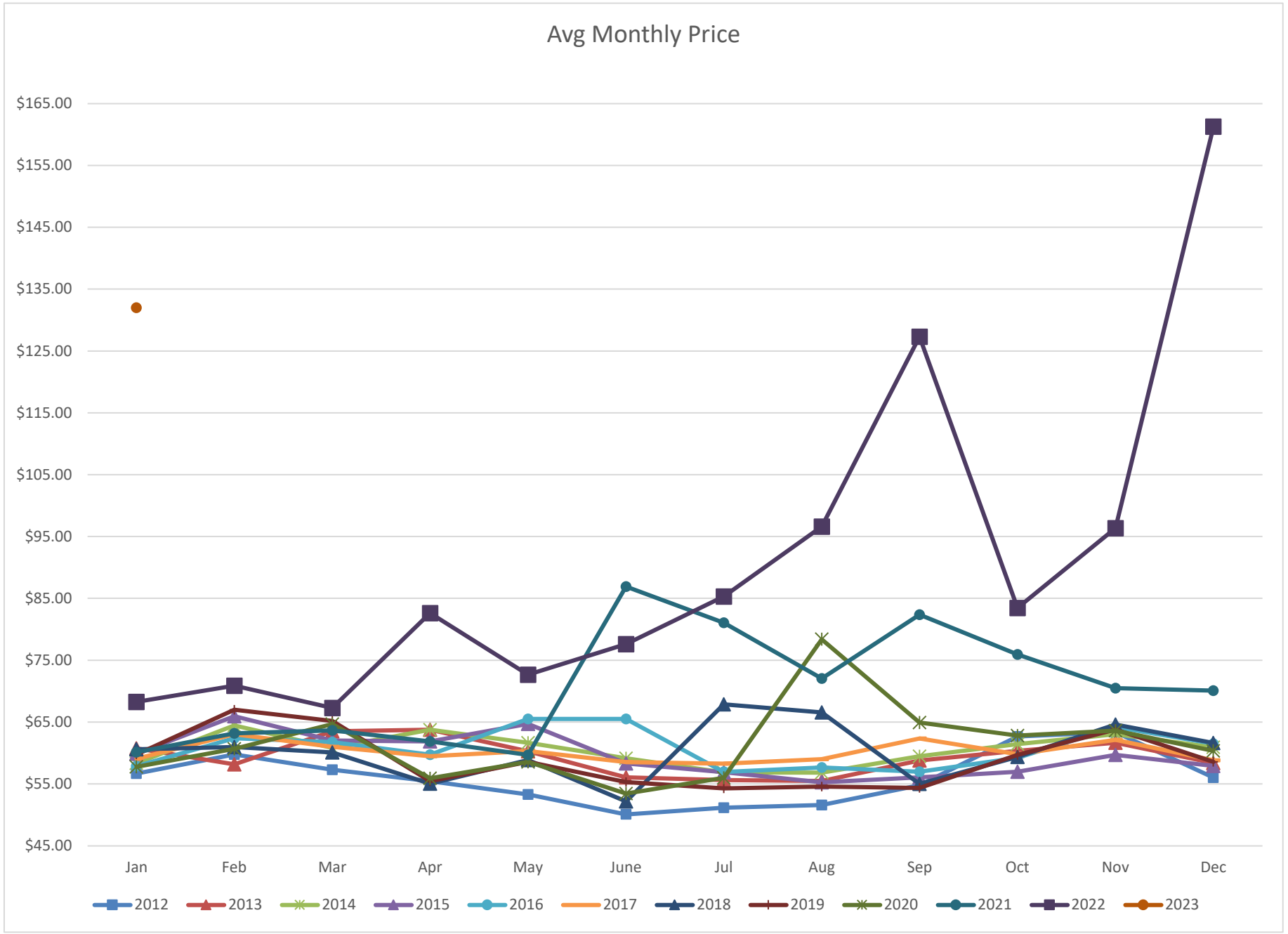
2023


Avg Monthly Price
$165.00
$155.00
$145.00
$135.00
$125.00
$115.00
$105.00
$95.00
$85.00
$75.00
$65.00
$55.00
$45.00
Jan
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2012
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2017
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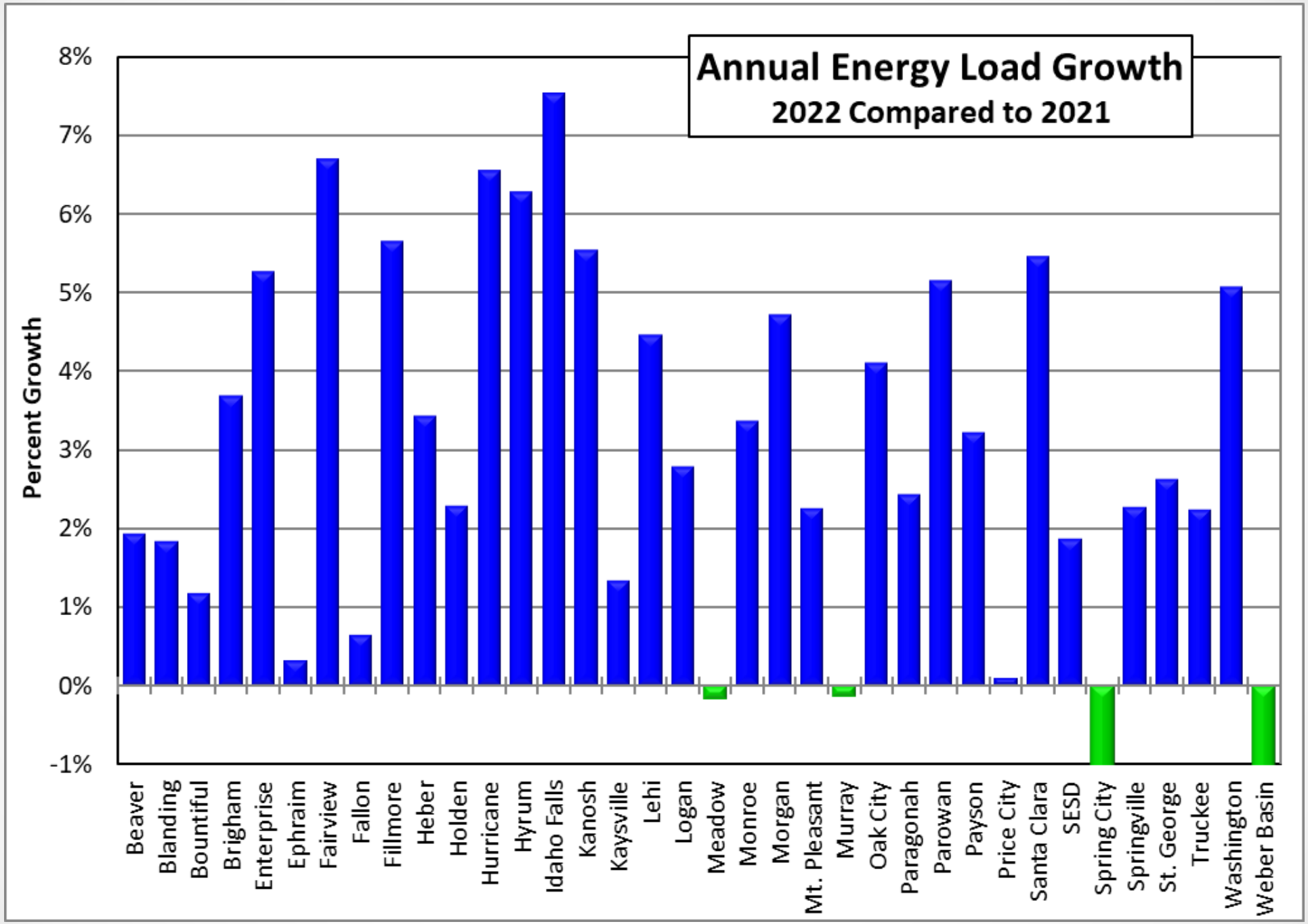
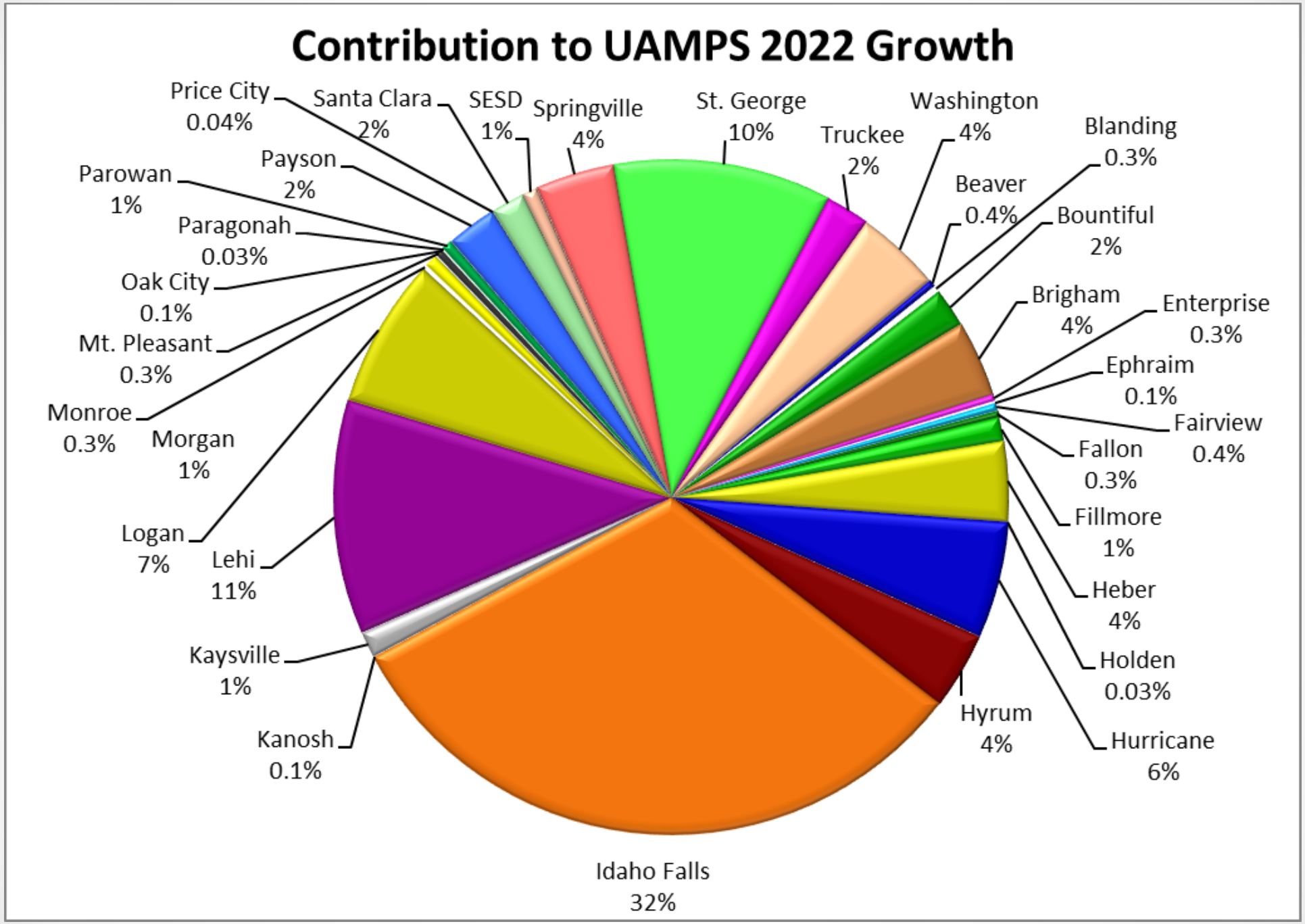
2019
2020
2021
2022
2023

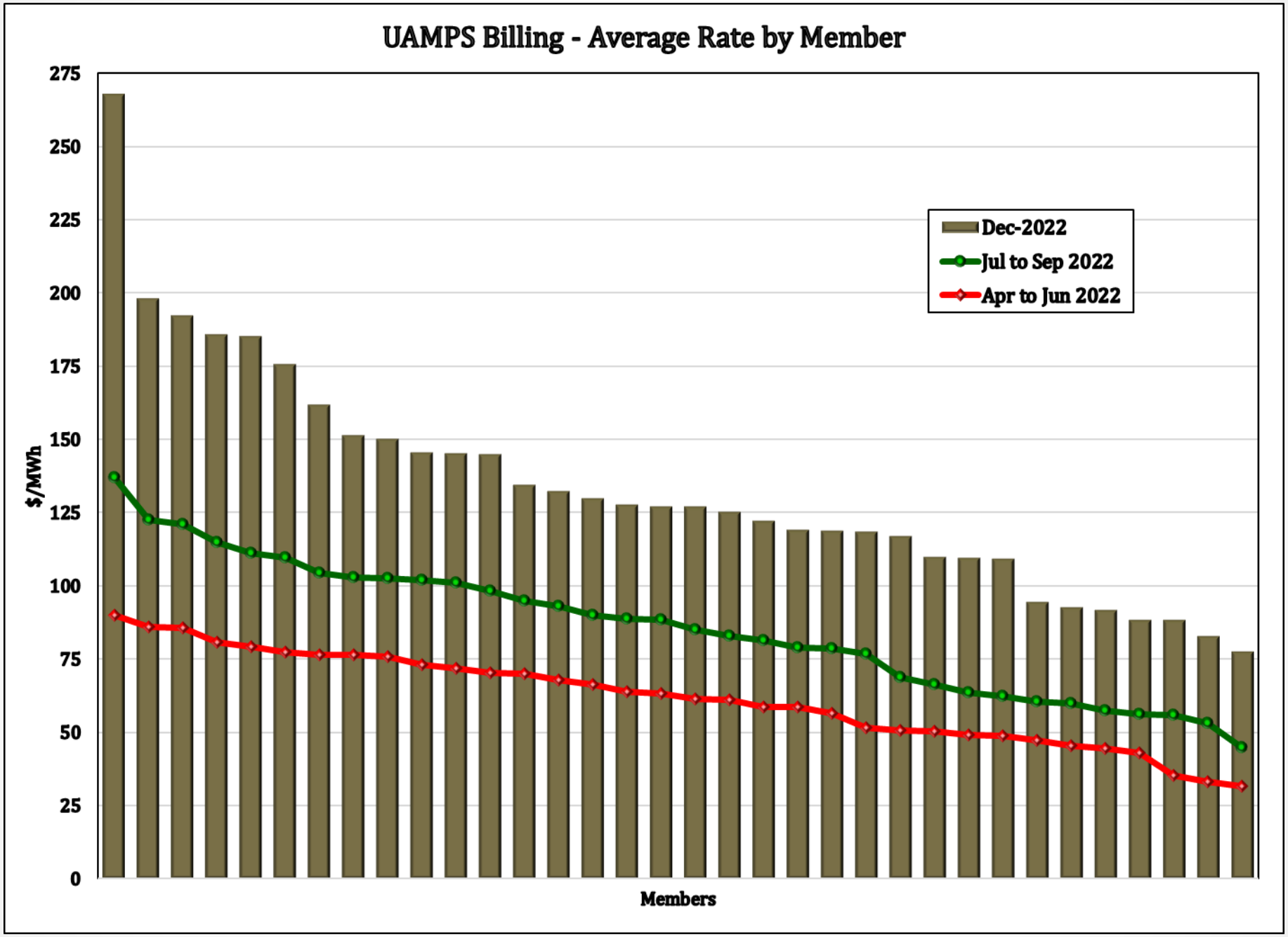
# PX and Scheduling Report

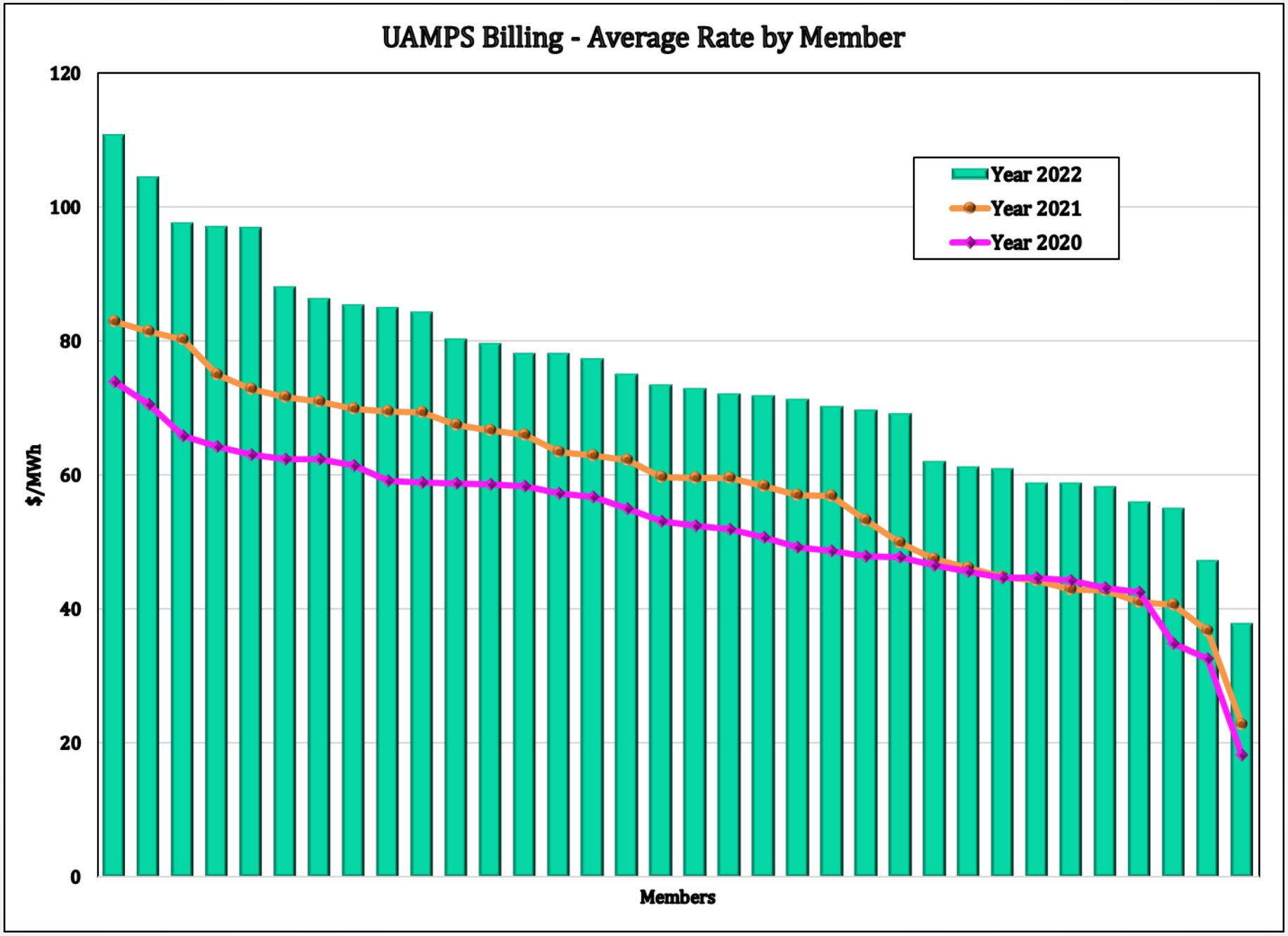
## January 2023


Annual Energy Load Growth
2022 Compared to 2021
Percent Growth
8%
7%
6%
5%
4%
3%
2%
1%
0%
-1%
Beaver
Blanding
Bountiful
Brigham
Enterprise
Ephraim
Fairview
Fallon
Fillmore
Heber
Holden
Hurricane
Hyrum
Idaho Falls
Kanosh
Kaysville
Lehi
Logan
Meadow
Monroe
Morgan
Mt. Pleasant
Murray
Oak City
Paragonah
Parowan
Payson
Price City
Santa Clara
SESD
Spring City
Springville
St. George
Truckee
Washington
Weber Basin

# Contribution to UAMPS 2022 Growth




UAMPS Billing - Average Rate by Member
275
250
225
200
175
150
125
100
75
50
25
0
$/MWh
Members
Dec-2022
Jul to Sep 2022
Apr to Jun 2022

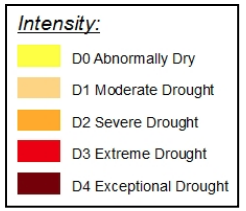

UAMPS Billing - Average Rate by Member
120
100
80
60
40
20
0
$/MWh
Members
Year 2022
Year 2021
Year 2020

# CRSP Project / CREDA Report

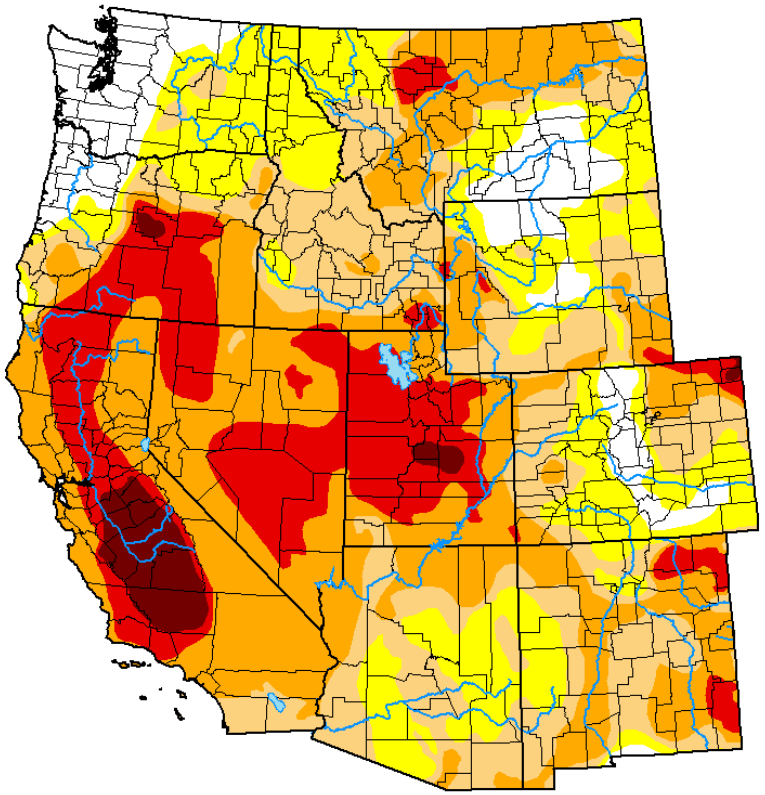
## February 14, 2022

- CRSP Hydrology
- CREDA Update

# Drought Monitor

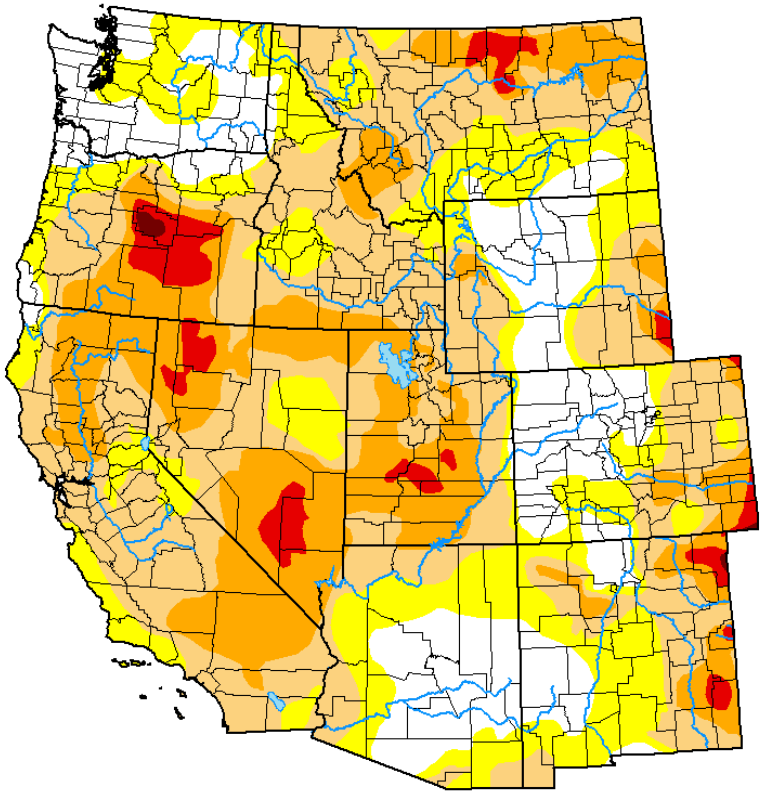



## September 2022



9/15/2022

## February 2023

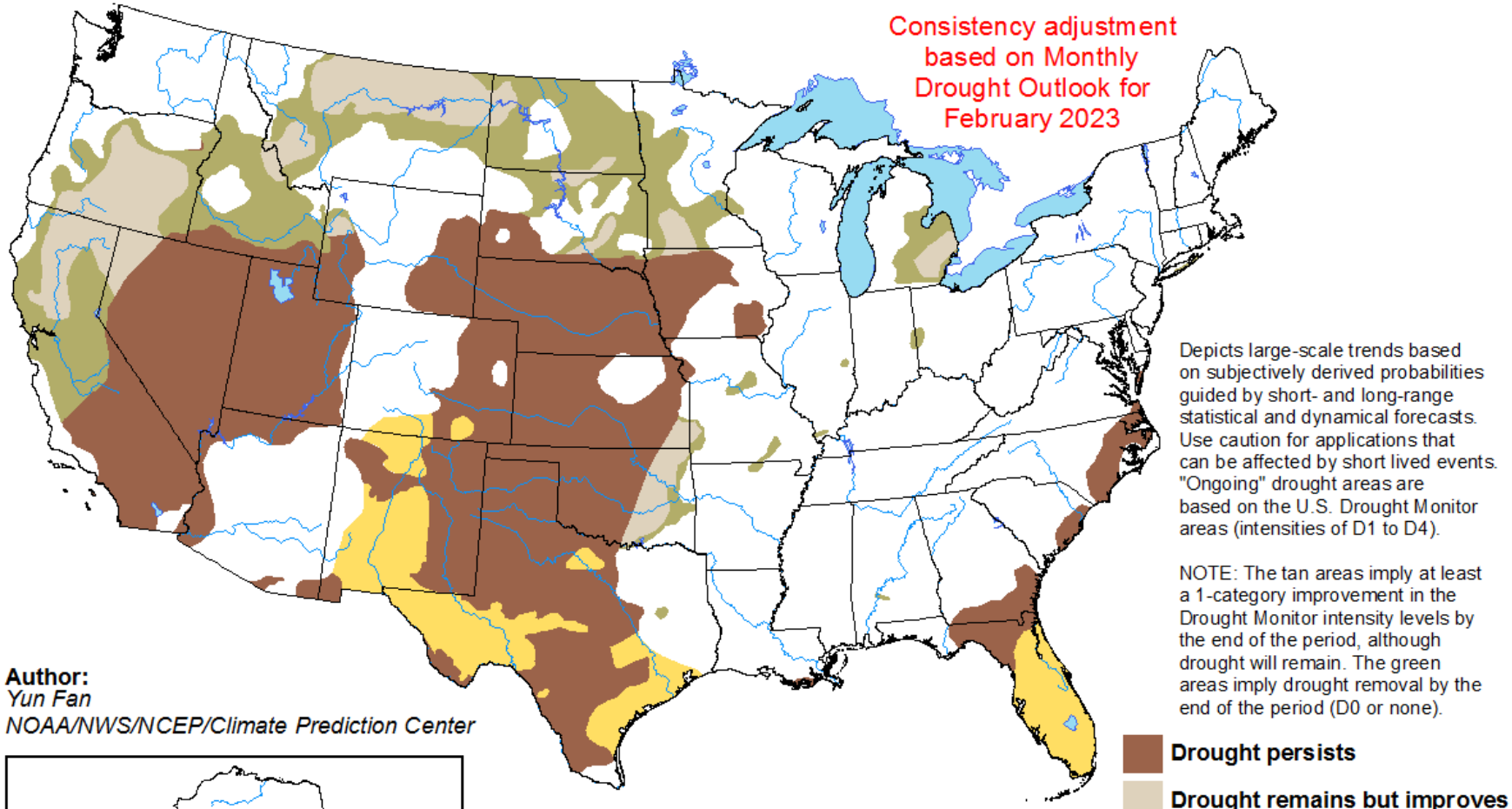


2/9/2023

# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

*Valid for February 1 - April 30, 2023*
*Released January 31, 2023*



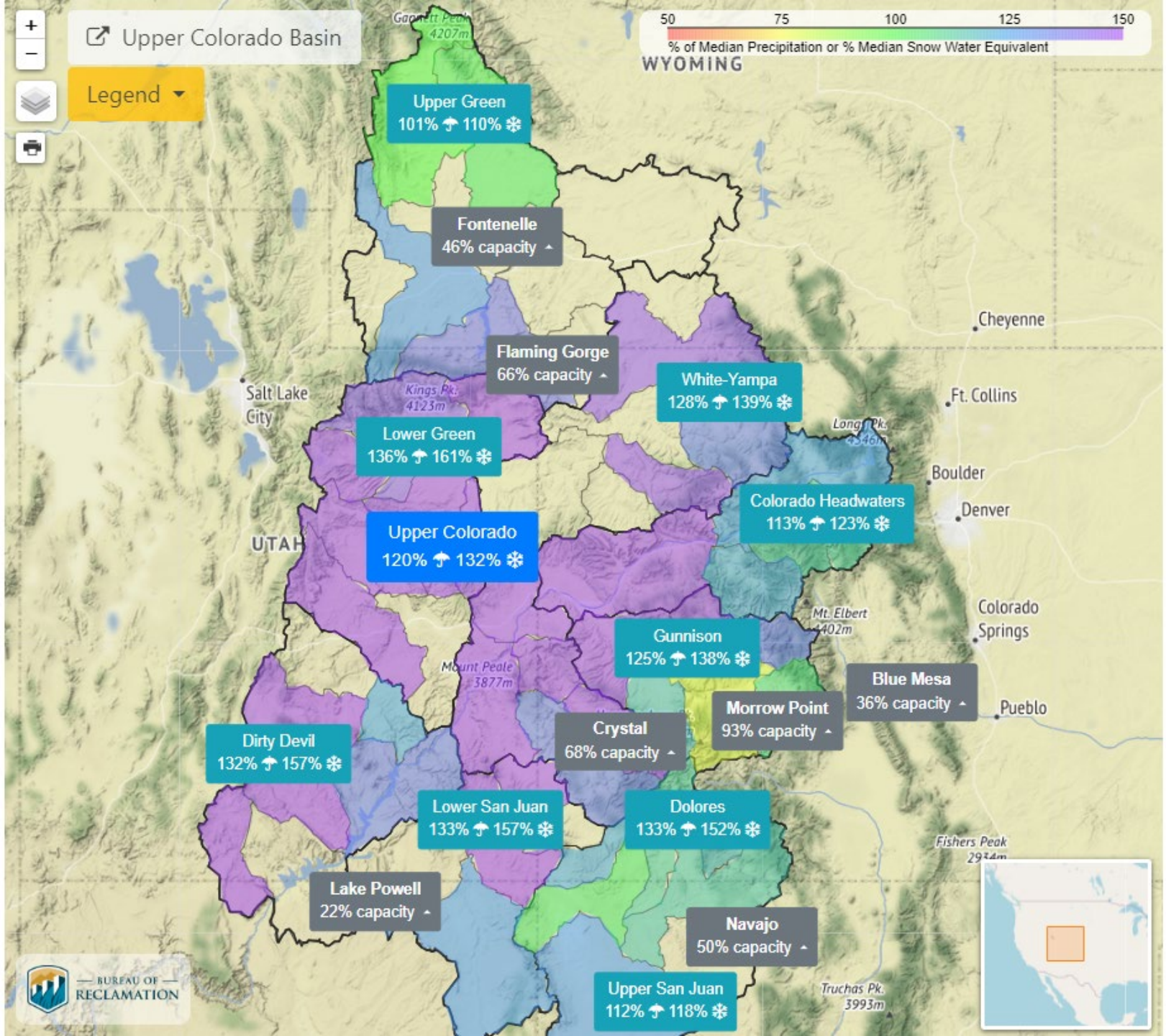

**Author:**
*Yun Fan*
*NOAA/NWS/NCEP/Climate Prediction Center*

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

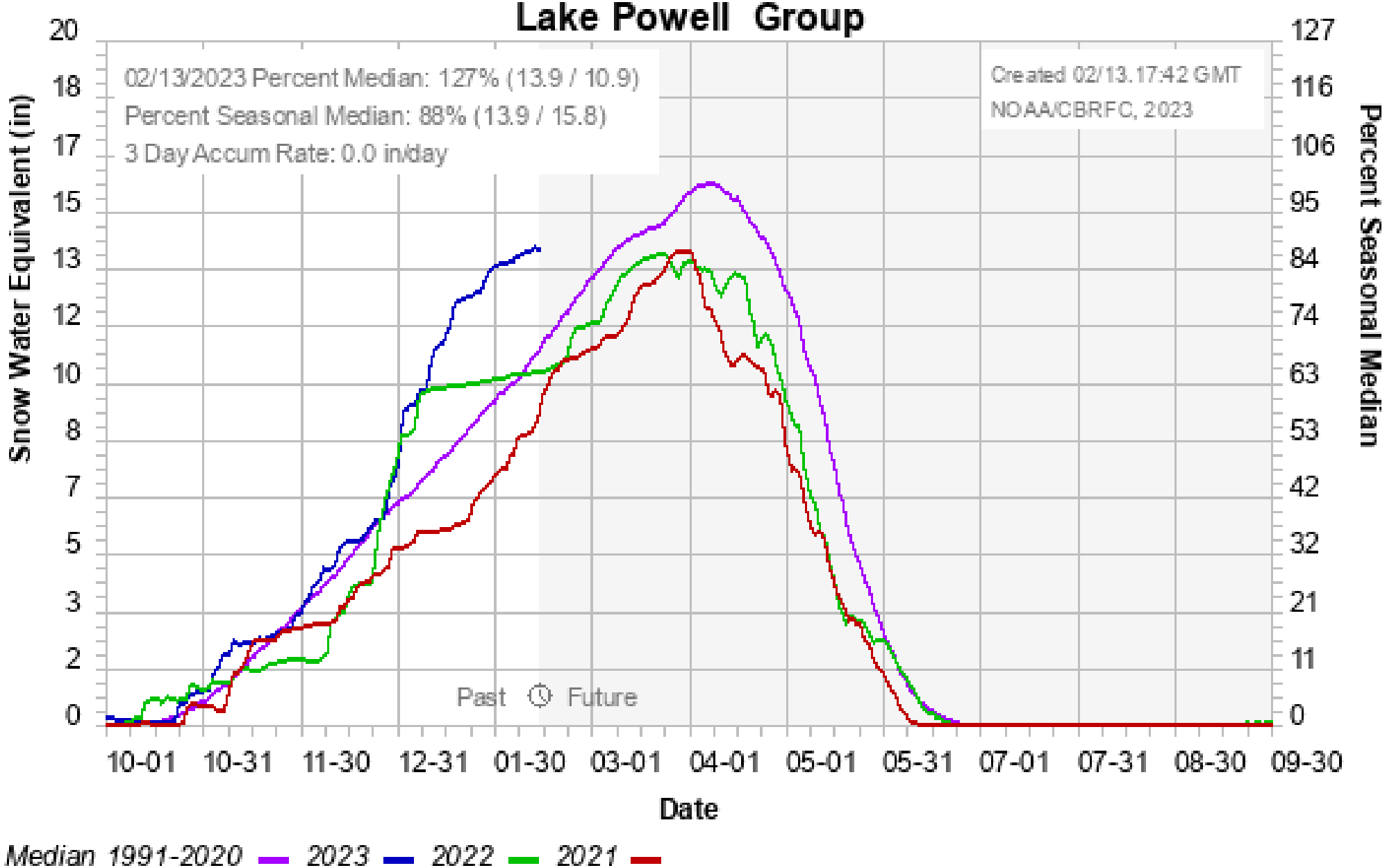
- **Drought persists**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

**http://go.usa.gov/3eZ73**


Upper Colorado Basin
Legend
50
75
100
125
150
% of Median Precipitation or % Median Snow Water Equivalent
WYOMING
Upper Green
101% 110%
Fontenelle
46% capacity
Flaming Gorge
66% capacity
White-Yampa
128% 139%
Lower Green
136% 161%
Upper Colorado
120% 132%
Colorado Headwaters
113% 123%
Gunnison
125% 138%
Blue Mesa
36% capacity
Morrow Point
93% capacity
Crystal
68% capacity
Dirty Devil
132% 157%
Lower San Juan
133% 157%
Dolores
133% 152%
Lake Powell
22% capacity
Navajo
50% capacity
Upper San Juan
112% 118%
Cheyenne
Ft. Collins
Boulder
Denver
Colorado Springs
Pueblo
Salt Lake City
UTAH
Kings Pk. 4123m
Mt. Elbert 4402m
Mount Peale 3877m
Fishers Peak 2934m
Truchas Pk. 3993m
BUREAU OF RECLAMATION

# Colorado Basin River Forecast Center

## Lake Powell Group

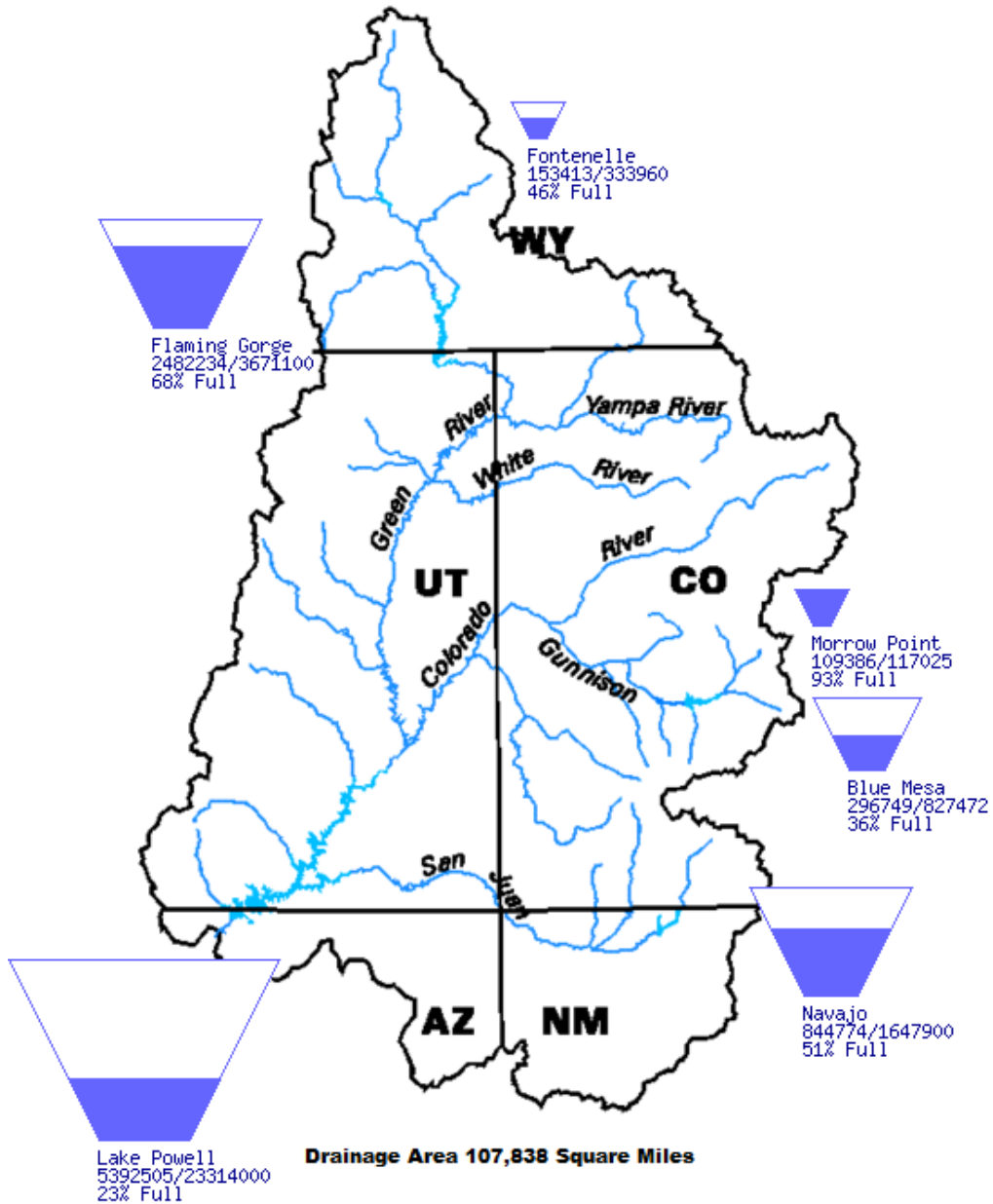


# Lake Powell Conditions

- Status of Lake Powell
  - Current lake elevation = 3,522 feet
    - = 178 feet below the spillway
    - = 32 feet above penstock intake level
  - Current storage is 5.4 million acre feet
    - = 22% of reservoir capacity

Data Current as of:
02/12/2023

# Upper Colorado River Drainage Basin



# Lake Powell Inflow

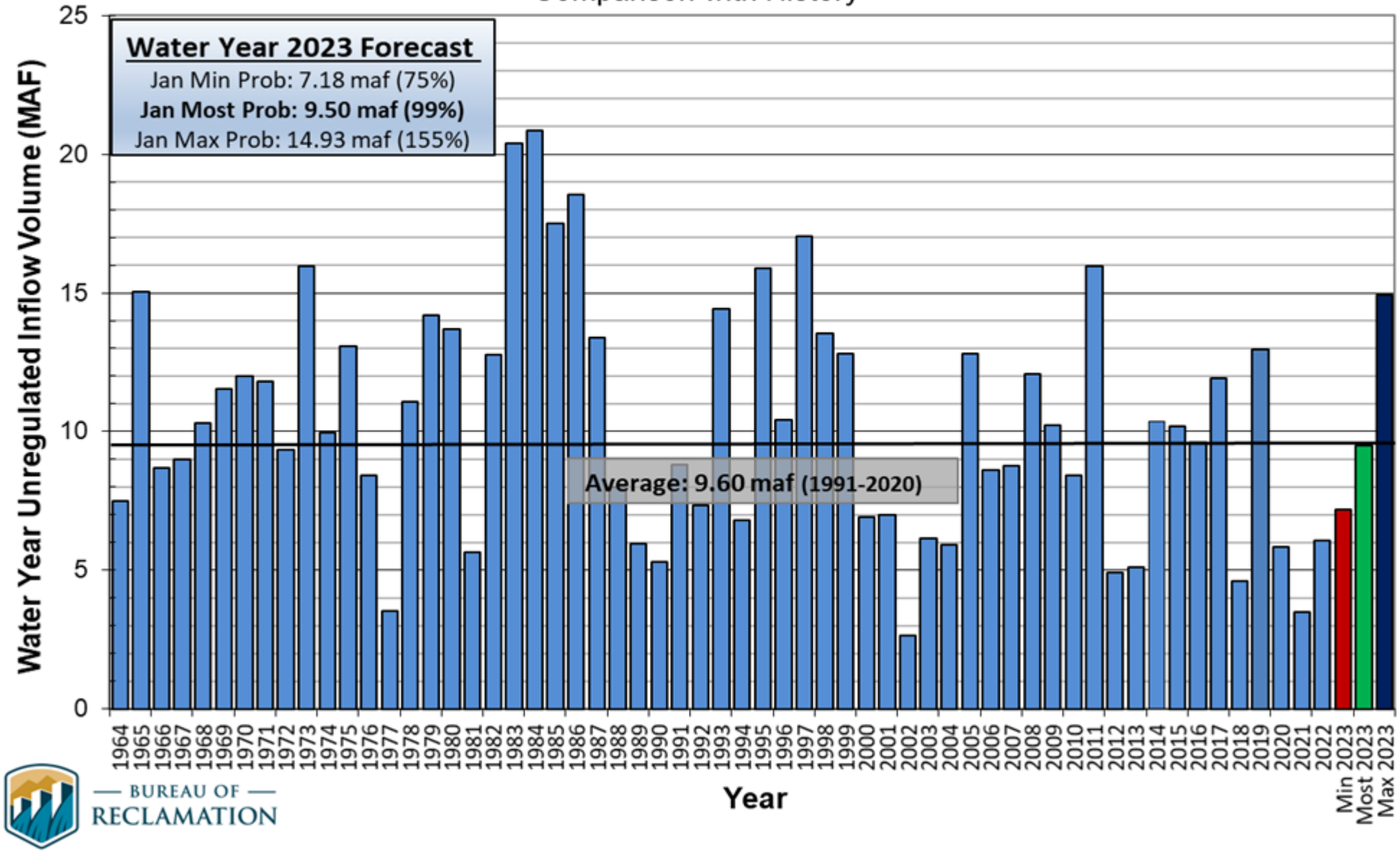
- Status of Lake Powell:
  - Historical unregulated inflow to Lake Powell by water-year
    - 2010 = 73% of average
    - 2011 = 147%
    - 2012 = 45%
    - 2013 = 47%
    - 2014 = 96%
    - 2015 = 94%
    - 2016 = 89%
    - 2017 = 110%
    - 2018 = 43%
    - 2019 = 120%
    - 2020 = 54%
    - 2021 = 32%
    - 2022 = 63% of avg.
    - 2023 = 99% of avg. forecasted (probable range of 75% to 155%)

- 2022/2023 inflow:
  - Actual
    - Nov = 83%
    - Dec = 88%
    - Jan = 107%
  - Forecast
    - Feb = 82%
    - Mar = 84%
    - Apr = 105%

# Lake Powell Unregulated Inflow

## Water Year 2023 Forecast *(issued January 5)*

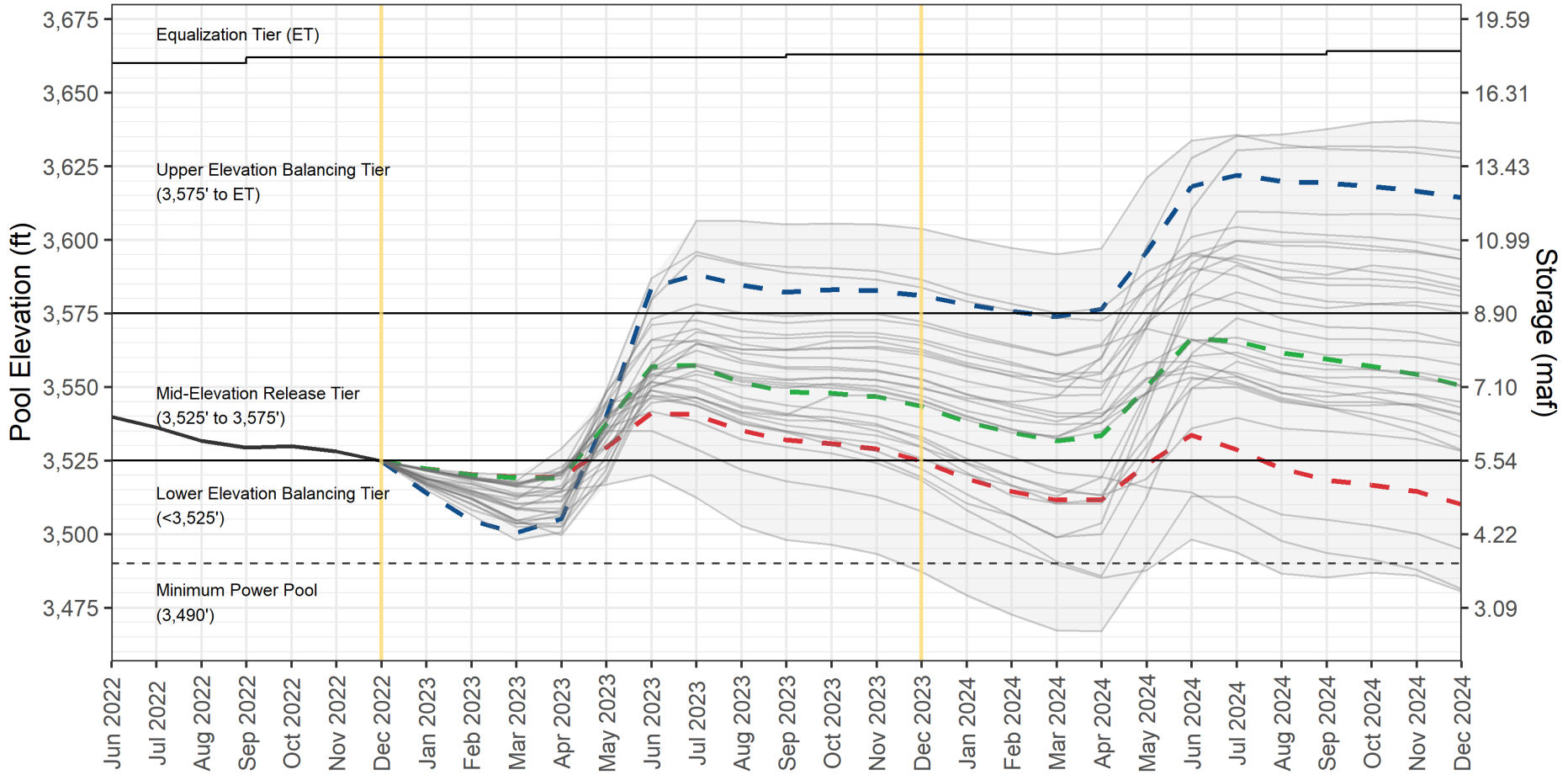
Comparison with History




BUREAU OF RECLAMATION

# Lake Powell End-of-Month Elevations[1]

## CRMMS Projections from January 2023




[1] Projected Lake Powell end-of-month physical elevations from the latest CRMMS-ESP and 24-Month Study inflow scenarios.

BUREAU OF RECLAMATION

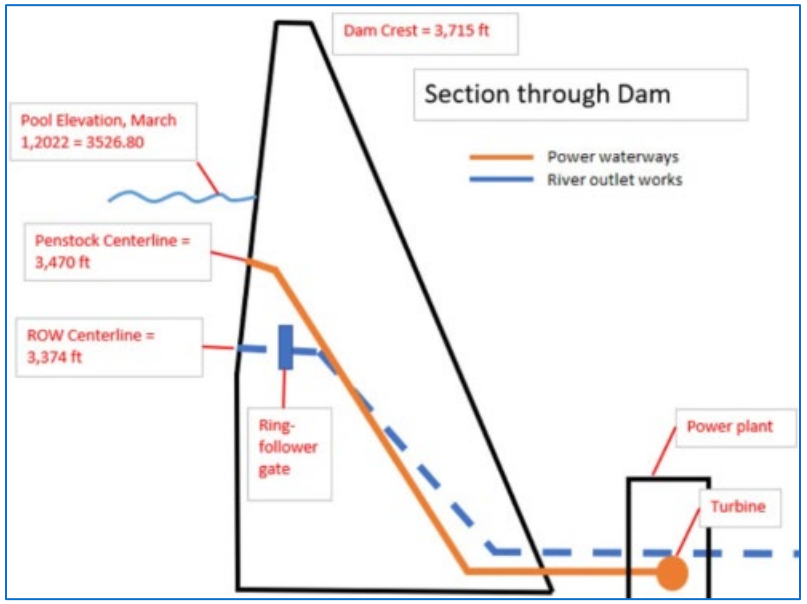
# Glen Canyon Dam Modifications Study

## Alternatives

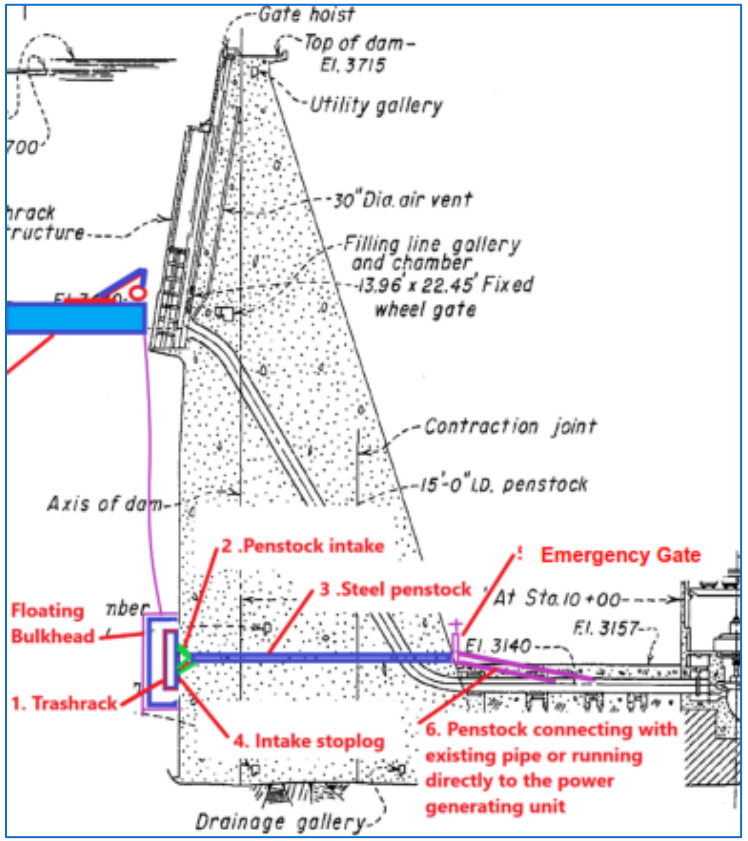
1. New intakes through Glen Canyon Dam
   a) Low-Level Power Intake with New Low Head Runners
   b) Mid-Level Power Intake with Existing Runners
2. Outlet Works Powerplant
   a) New Powerplant, 2 Units
   b) Existing Powerplant connection
3. Abutment Powerplant
   a) Left Abutment Underground Powerplant
   b) Right Abutment In-River Powerplant
4. Adjust Colorado River Basin Operations
5. Refine MPP Operating Limit
6. Invest in Solar or Wind Generation

# Glen Canyon Dam Modifications Study

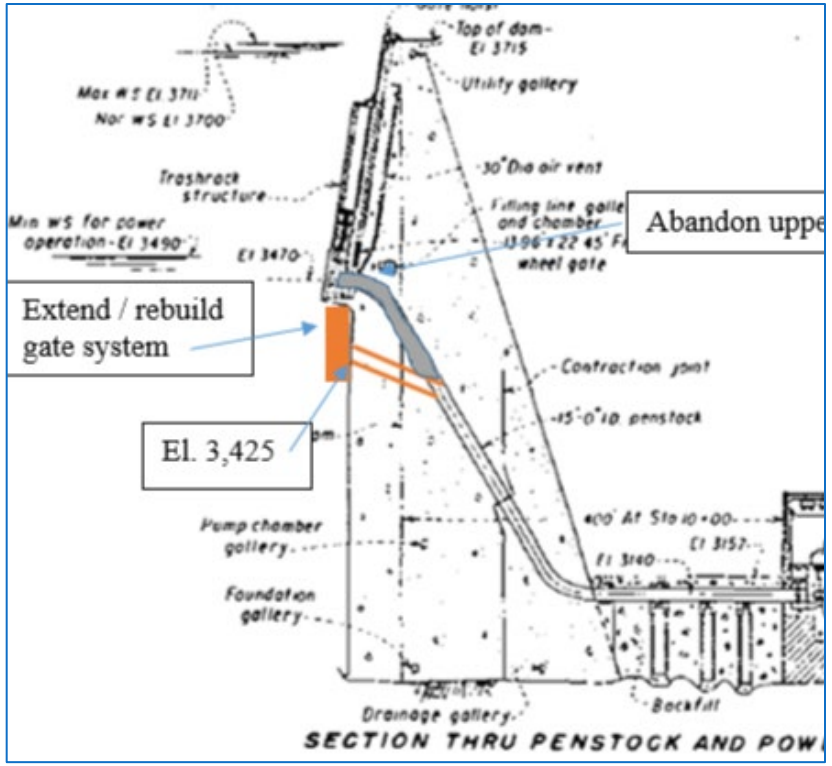
- Alternatives 1 = New Intakes




*current view*



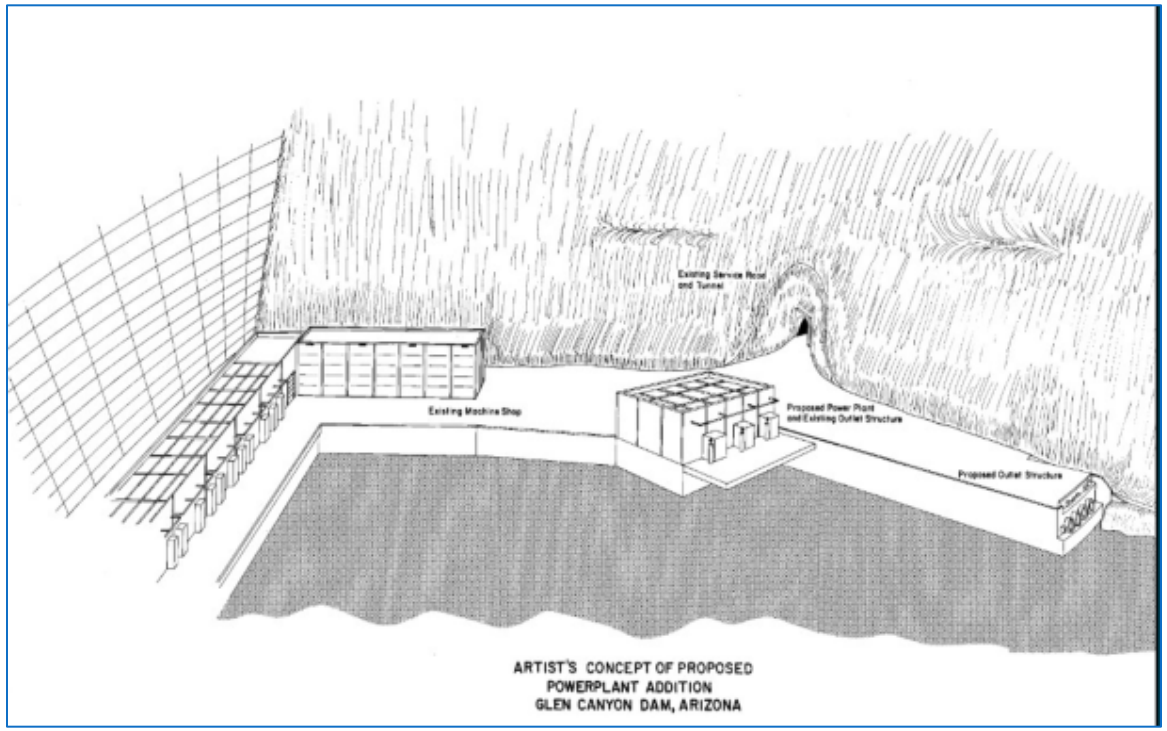

*adding low level intake*



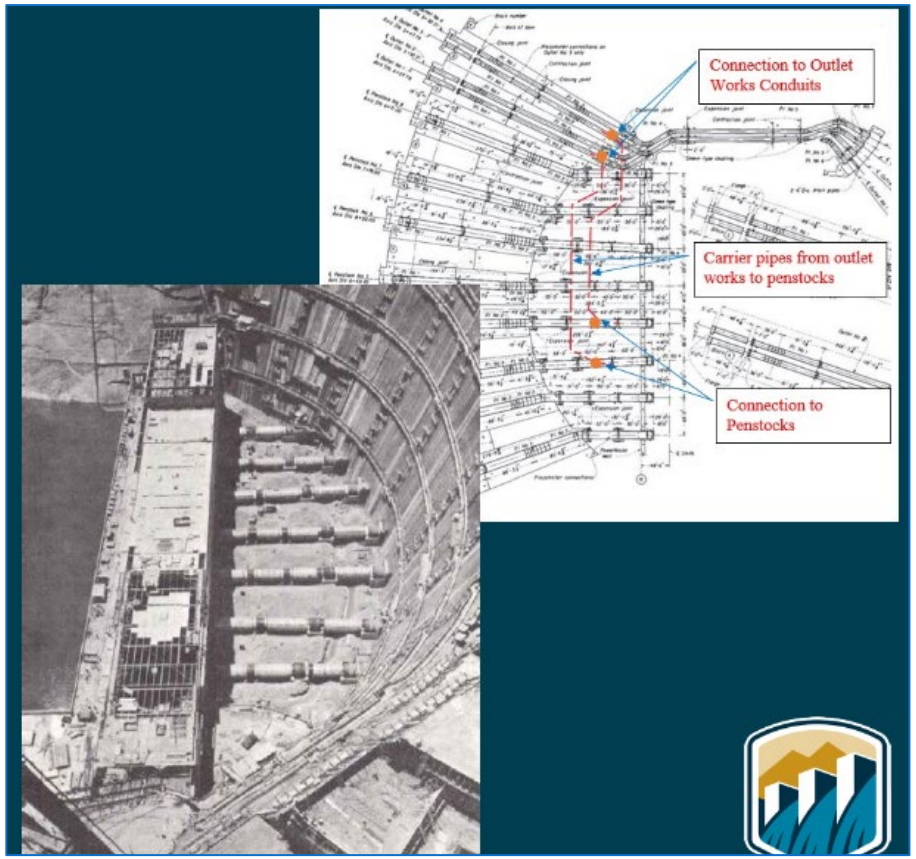

*adding mid level intake*

# Glen Canyon Dam Modifications Study

- Alternative 2a = Add power plants to bypass tubes
- Alternative 2b = Connect bypass tubes to existing penstocks



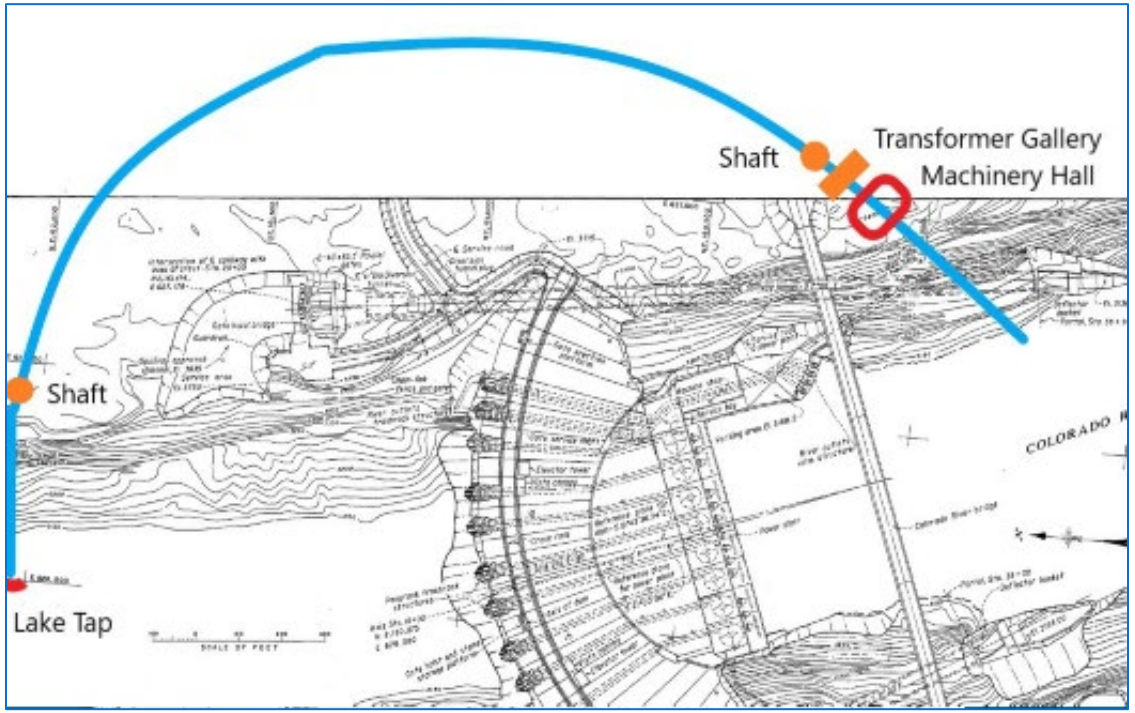

*new power plants*



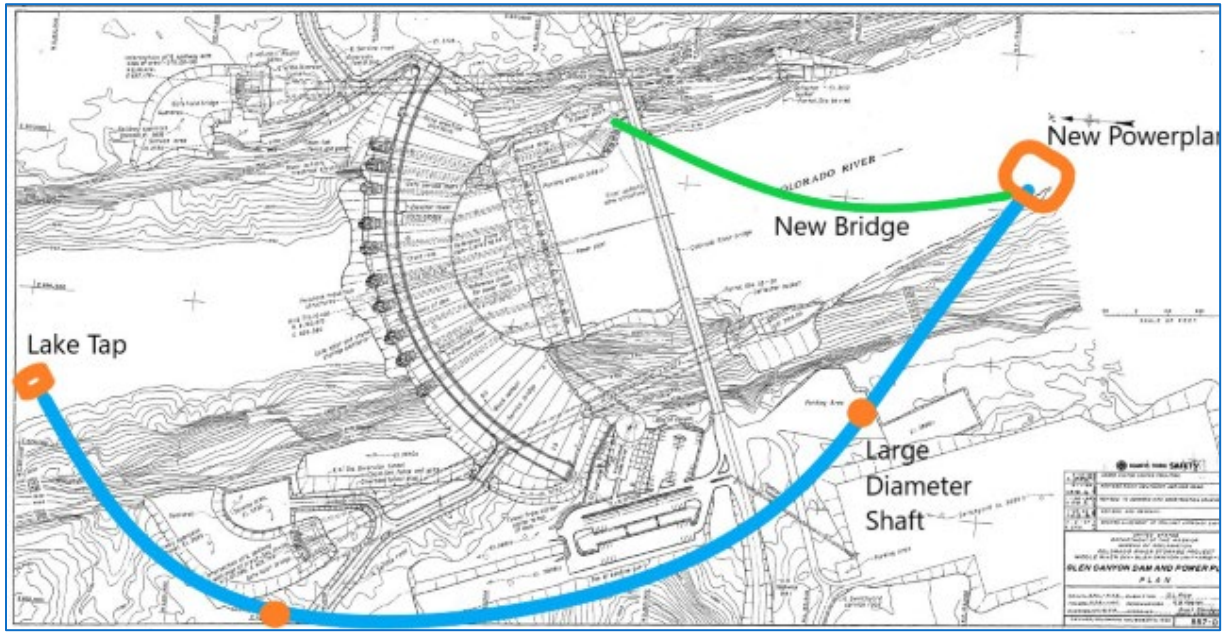

*new tubes to reconnect*

# Glen Canyon Dam Modifications Study

- Alternatives 3 = Tunnel around dam




*left abutment*



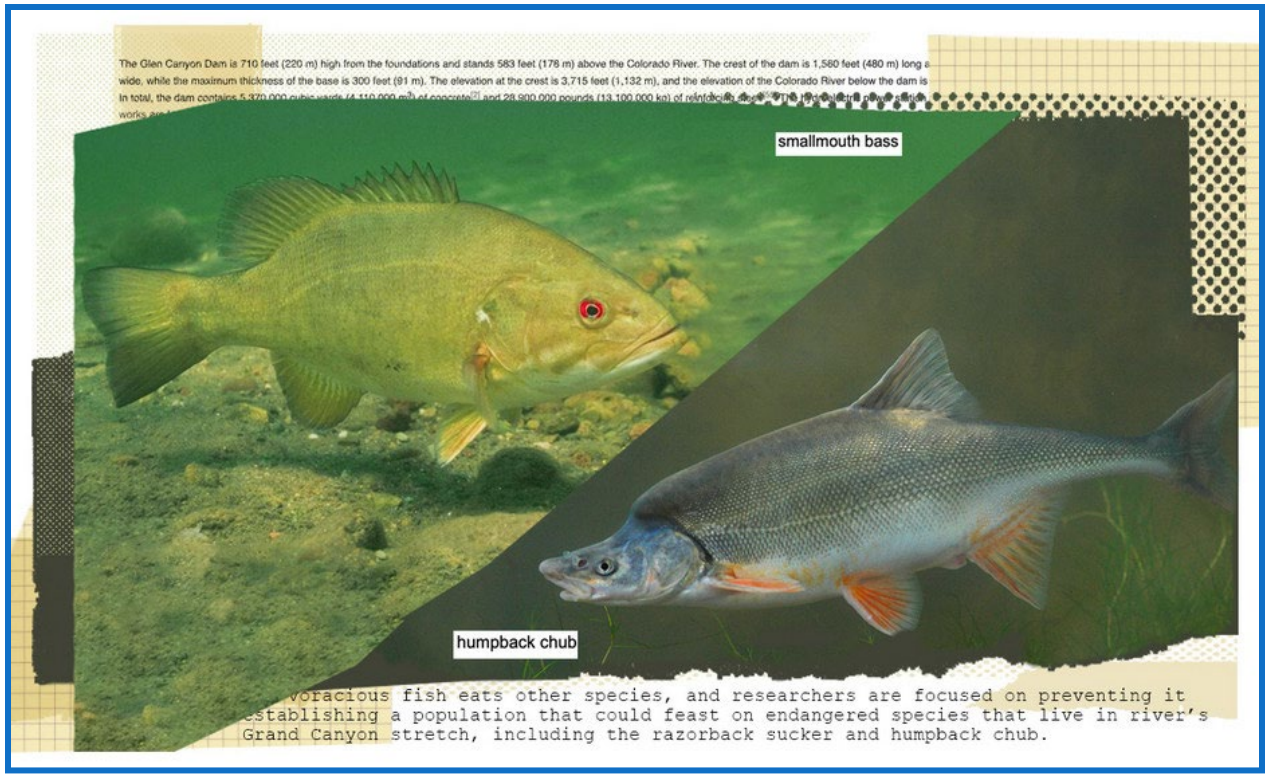

*right abutment*

# Resource Investigation Committee

- WAPA looking to find affordable and reliable resources to augment hydropower resources
- Sent RFI (Request For Information) for up to 400 MW of generation

# Fish

- Smallmouth Bass were caught below Glen Canyon dam
  - Bass prey on Humpback Chub
  - Want to bypass turbines to get cooler water downstream to disadvantage Bass
  - Want modified flows for up to 3 years to cool water
  - Power purchase cost estimate to replace energy is $40M to $80M



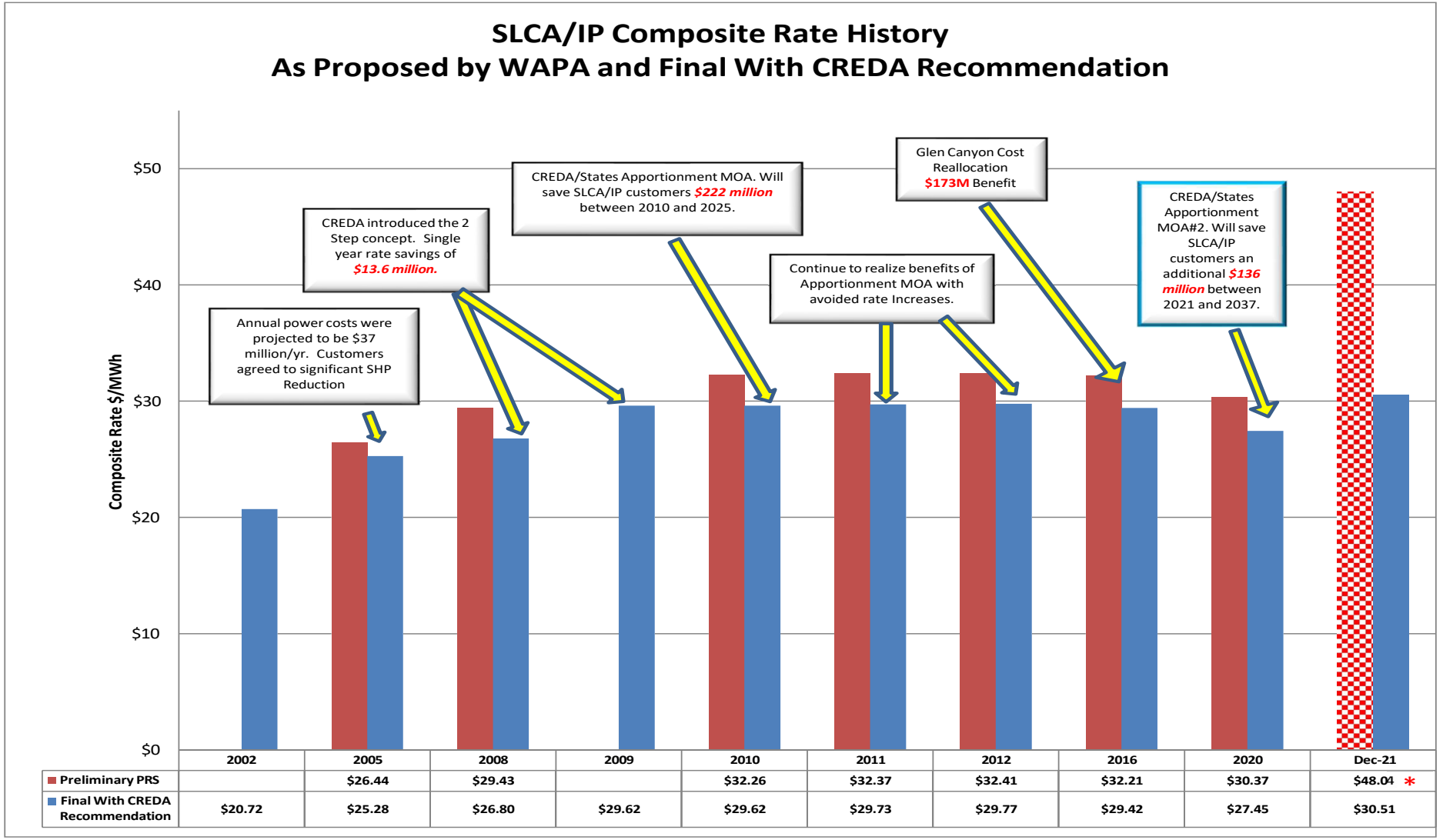
# CREDA

- Save the Colorado vs Department of the Interior
  - Complaint filed by environmental groups
  - An attack upon hydropower
  - Says that climate change was not considered in operation criteria for the dam and that should be rather than hydropower
  - Concern is with how dam is operated for hydro production
  - Court will review record and make decision
    - CREDA intervened
  - **Result: court ruled against this litigation, in favor of U.S. and hydropower …**

# CRSP Rates

- Current CRSP rate effective through year 2023
  - Set to be in place for 2 years
- FRN coming for new rate that will be set to follow
  - CREDA is monitoring closely

# Value of CREDA on Rate




| | 2002 | 2005 | 2008 | 2009 | 2010 | 2011 | 2012 | 2016 | 2020 | Dec-21 |
|---|---|---|---|---|---|---|---|---|---|---|
| Preliminary PRS | | $26.44 | $29.43 | | $32.26 | $32.37 | $32.41 | $32.21 | $30.37 | $48.04 * |
| Final With CREDA Recommendation | $20.72 | $25.28 | $26.80 | $29.62 | $29.62 | $29.73 | $29.77 | $29.42 | $27.45 | $30.51 |

*Pg 20 of 10/2021 Brochure "If WAPA was purchasing power to SHP levels in WAPA-199, the $130M cost for purchased power in the September 24-month Study would result in a 75 percent rate increase compared to WAPA-190."

# Natural Gas PROJECT

PMC February 14, 2023

Confidential Business Information--Exempt from Disclosure

# Five Year MIG NG Purchase

- As we contemplate five year purchases, looking for interest in MIG NG hedge
- If gas is not needed, could be sold back at daily index prices
- Need to aggregate details for desired purchase

Confidential Business Information--Exempt from Disclosure

# Next Steps

- Send out member survey for monthly volume, delivery point
- Execute additional NAESB agreements as needed
  - Ensure purchase confirm is contractually tied to project members
- Review purchase with TEA
- Review purchase with members
- Complete purchase

Confidential Business Information--Exempt from Disclosure

# Horse Butte Wind RFP Update

HORSE BUTTE COMMITTEE UPDATE

FEBRUARY 14, 2023

CONFIDENTIAL BUSINESS INFORMATION
EXEMPT FROM DISCLOSURE

# HBW RFP Update

- Sargent and Lundy has prepared the RFP materials
  - Recommended a complete EPC contract to include in RFP package
  - EPC contract enables higher accuracy bids based upon UAMPS' commercial terms
  - EPC contract now developed and reviewed by outside counsel
  - Working on finishing touches, anticipate sending this month
- Sargent and Lundy is preparing list of recipients

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