

**MINUTES OF MORGAN CITY
COUNCIL WORK MEETING**

MARCH 26, 2024; 6:00 P.M.

MAYOR AND COUNCILMEMBERS

PRESENT:

Mayor Steve Gale, Tony London, Jeff Wardell, Eric Turner, and Jeffery Richins

COUNCILMEMBERS PRESENT

ELECTRONICALLY:

Dave Alexander

STAFF PRESENT:

Ty Bailey, City Manager; Clark Crook, Power Foreman; and Denise Woods, City Recorder

EXCUSED:

Gary Crane, City Attorney

OTHERS PRESENT:

Mason Baker, CEO, UAMPS; and Jackie Coombs, Managing Director of Corporate & Member Relations, UAMPS

This meeting was held in the Council Conference Room of the Morgan City Offices, 90 West Young Street, Morgan, Utah. The meeting was streamed live on YouTube and available for viewing on the City's website – morgancityut.org.

This meeting was called to order by Mayor, Steve Gale.

ITEMS FOR DISCUSSION

PRESENTATION – UAMPS ANNUAL UPDATE – MASON BAKER, CEO, UAMPS (UTAH ASSOCIATED MUNICIPAL POWER SYSTEMS)

Mason Baker, CEO, UAMPS, gave a presentation and the discussion was focused on trends observed in the wholesale electric market and their impact on members, along with measures taken by the UAMPS to address these issues. Reference was made to Morgan's resource portfolio, particularly highlighting the FY 23 forecast covering calendar year 2022 and the initial four months of 2023.

Council Member London made an inquiry regarding "Firm Enchant."

Mason explained it was initially intended to be a power purchase agreement involving the conversion of the San Juan coal plant into a carbon capture facility by a developer called Enchant. However, this plan fell through, leading to a significant impact on members due to the unexpected need to procure replacement power at higher costs. The discussion emphasized the importance of improving forecasting accuracy to mitigate such risks, citing examples of cautionary measures being taken in forecasting future projects such as Enchant and two delayed solar projects.

Mason gave a brief history of UAMPS stating it was established 44 years ago, originated to engage with the Hunter coal plant. Presently, it comprises 50 members across seven Western States, with 37 members in Utah, managing 16 diverse projects. As a non-profit, project-based joint action agency, UAMPS empowers members to shape their resource portfolios to cater to their communities. The organization is contemplating an alternative structure to introduce an "all requirements" feature akin to UMPA, entrusting

UAMPS with planning and resource procurement responsibilities. This shift is prompted by members facing constraints in managing power supply issues amidst energy transition concerns within their distribution systems. While the existing membership model is likely to persist, UAMPS aims to remain adaptable to member needs, with any structural changes contingent on member input. The organization's strategic focus areas, delineated through a 2022 fall strategic planning exercise, encompass long-term planning, collaboration, and advocacy. As the industry evolves, UAMPS recognizes the necessity for enhanced member engagement in long-term planning to address evolving power supply dynamics, particularly with the gradual retirement of coal capacity in the western wholesale electric market.

A significant focus was placed on acquiring new resources, with several new projects in which Morgan participated. Challenges in developing new utility-scale generation projects, which typically take 5 to 7 years to develop, underscored the importance of optimizing existing resources. Maintaining current resources became crucial to bridge the gap until new resources were operational, with additional value derived from paid-off assets like the Hunter coal plant, whose debt had been paid off and should be a very low cost resource for the members. Also mentioned was the Nebo natural gas plant in Payson, whose debts will be cleared by 2026. An aggregate overview of UAMPS' power supply sources in 2023 revealed 25% from hydro, primarily the Colorado River storage project, reflecting sensitivity to water availability. The decreasing reliance on coal, down to 15% from around 30% in 2008, mirrored an industry-wide shift towards natural gas, which constituted 21% of the supply. Purchases accounted for 30% of the supply, posing challenges due to the extremely high wholesale electric market prices in 2023.

Mason stated a significant recommendation being made to members was to reduce their reliance on purchased power. The solar component was highlighted as continuing to expand, with 150 megawatts of utility-scale solar expected by the end of May, including projects such as Steel 1B near Plymouth. He referred to the slide in the presentation showing the projects Morgan was currently involved in. Trends in the wholesale electric market were discussed, including historical price volatility, particularly during the Western energy crisis of 2001 and a challenging spike in pricing in the summer of 2022. Challenges such as coal scarcity and extended outages underscored the importance of resource diversity. Over the past 14 years, new generation capacity has been predominantly renewable, yet there remains a need for dispatchable capacity, likely in the form of natural gas, to balance intermittent renewable sources. Concerns were raised about grid reliability amid increasing reliance on renewables. The energy transition challenge was addressed through four pillars: transitioning to low-carbon emitting resources, incorporating dispatchable capacity, ensuring grid reliability, and managing the economic impacts on rates.

Mason highlighted the need for expanded transmission infrastructure, acknowledging the lengthy process of interconnecting new resources, which typically takes five or more years. Supply chain issues, particularly delays in solar projects due to module deliveries, were addressed. A shift towards domestic manufacturing to support the massive rebuild of the energy system over the next 15 years was noted, despite anticipated challenges and delays.

Council Member London asked regarding the importance of battery technology for storage.

Mason stated that battery technology was crucial for storing excess solar energy. Recommendations were made for integrating batteries with solar projects to address intermittency issues. He emphasized the importance of dispatchable capacity, notably through natural gas plants, to balance renewable generation fluctuations. Additionally, the recommendation to retain existing resources for as long as possible was made, alongside securing land for future generation facilities. Active pursuit of natural gas was mentioned. The focus remained on advancing natural gas projects while considering contracting for renewable resources due to economic constraints. Despite exploring options for solar and battery ownership, economic viability remains a challenge.

Mason referenced the slide showing Morgan's transaction in fiscal year 2023. The chart indicated that 48% of transactions were forward market transactions (PX), providing cost predictability compared to daily spot transactions. The majority of these PX transactions were scheduled to end before the summer of 2027, necessitating future planning. Pool exposure accounted for 18% of transactions, posing challenges due to pricing volatility in 2023. The option to call back IPP as a strategic asset during the transition to a natural gas plant was discussed. Purchases, comprising 65% of transactions, were a combination of PX and pool transactions. Despite hedging against financial risks, Morgan remained exposed to the Wholesale Market. UAMPS would be collaborating with Ty on new resource investigations aimed at diversifying market exposure while moderating risk.

Clark Crook, Power Foreman, asked regarding the recent legislative bill which was passed and how it tied in with Hunter.

Mason stated the improved relationship among the public power co-owners, consisting of UAMPS, UMPA, DG&T, and Rocky Mountain, was an advantage for future endeavors. Rocky Mountain's revised integrated resource plan was anticipated to extend the retirement dates for Hunter and Huntington coal facilities, reflecting a reconsideration of asset value.

He mentioned projects such as Steel and Fremont, involving solar and battery development, were progressing positively, with Power Purchase Agreements underway. Geothermal exploration benefited from advancements in drilling techniques, with potential Power Purchase Agreements envisaged for operational maintenance. Natural gas generation discussions focused on internal generation for load management, alongside efforts to narrow down site locations for new facilities. The initiative to assess financial health aimed to provide members with meaningful benchmarking data ahead of the annual member conference.

Council Member Alexander asked Mason to comment on the recent Utah Legislature and IPP, in particular the bill that Governor Cox recently signed.

Mason stated he felt it wasn't deemed a productive piece of legislation, particularly in terms of the air permitting scheme, with doubts raised over the acquisition likelihood of an 1800-megawatt coal unit. Concerns about governance issues and the need for improved messaging and strategy were highlighted. Despite efforts invested, desired outcomes weren't achieved, prompting a reassessment of strategy effectiveness.

Council Member Alexander stated the Governor had mentioned that parts of the bill needed to be revisited and asked if there would be any help if that occurred.

Mason said he had not heard that, but it was his hope that they would revisit the bill's problematic aspects, especially concerning air permitting.

Council Member London asked for an explanation regarding Rocky Mountain Power's recent project cancellations.

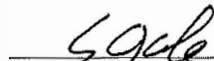
Mason stated they were attributed to various issues, including wildfire litigation liabilities and past experiences with rate increases, leading to a reevaluation of asset retention strategies. Overall, a call for better dialogue and collaboration was emphasized.

TRAINING – GARY CRANE, CITY ATTORNEY

No training was provided.

This meeting was adjourned at 6:55 p.m.


Denise Woods, City Recorder


Steve Gale, Mayor

These minutes were approved at the April 23, 2024 meeting.

Morgan City Council Presentation

March 26, 2024

Mason Baker, CEO & General Manager



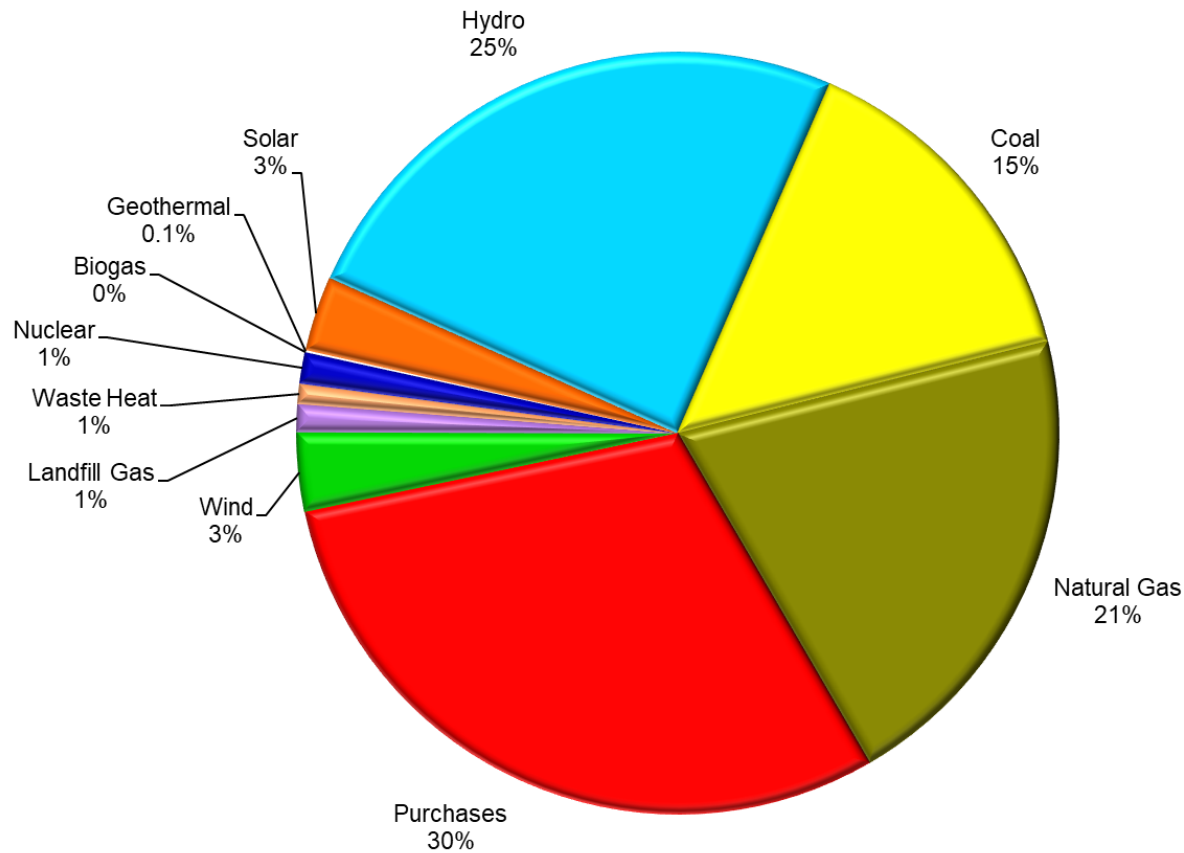
LLAMPS



- **Formed 1980**
- **Electric Services**
- **50 Members / 7 States**
- **16 Projects**
- **Non-profit**
- **Member autonomy**



UAMPS Projects



Resources by Type: 2023

Generation Projects

Hunter Project – coal-fired

San Juan Project – coal-fired (retired)

IPP Project – coal fired (converting to natural gas)

Payson Project – natural gas

Natural Gas Project

CRSP Project – hydro

- **Provo River** - hydro
- **Olmsted** - hydro

Horse Butte Wind Project – wind

- **Repowering and/or HBW 2** – investigating

Veyo Project – waste heat

Firm Power Supply Project

- **Pleasant Valley** – wind
- **Patua** – geothermal and solar
- **Red Mesa Tapaha (2023)** – solar
- **Steel 1A and Steel 1B (2024)** – solar
- **Sunnyside** – waste coal

Carbon Free Power Project – small modular reactors (terminated)

Transmission Projects

Central-St. George Project

Craig-Mona Project

Service Projects

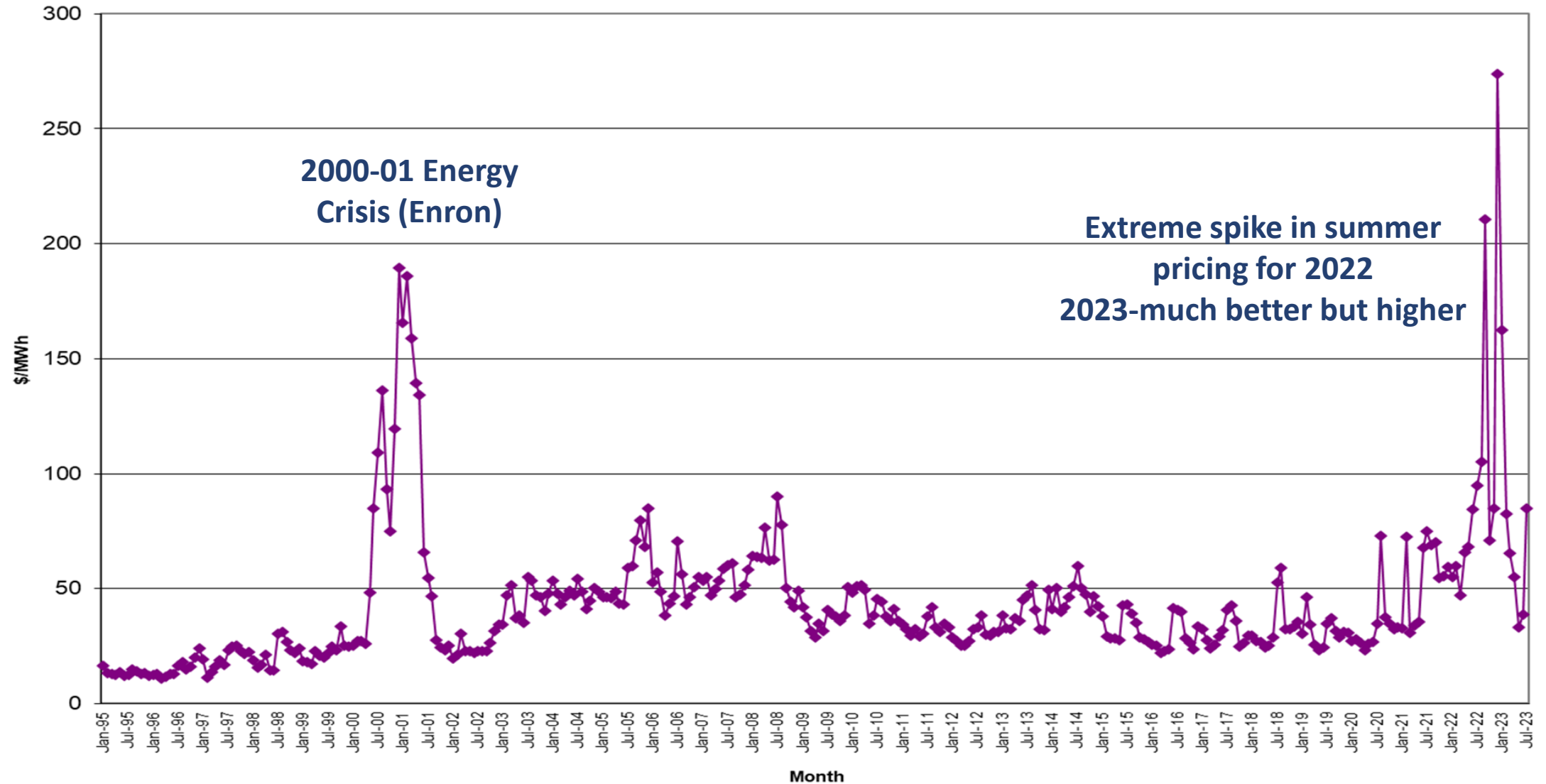
Pool Project – dispatch and scheduling services

Resource Project – investigation of new resources

GPA Project

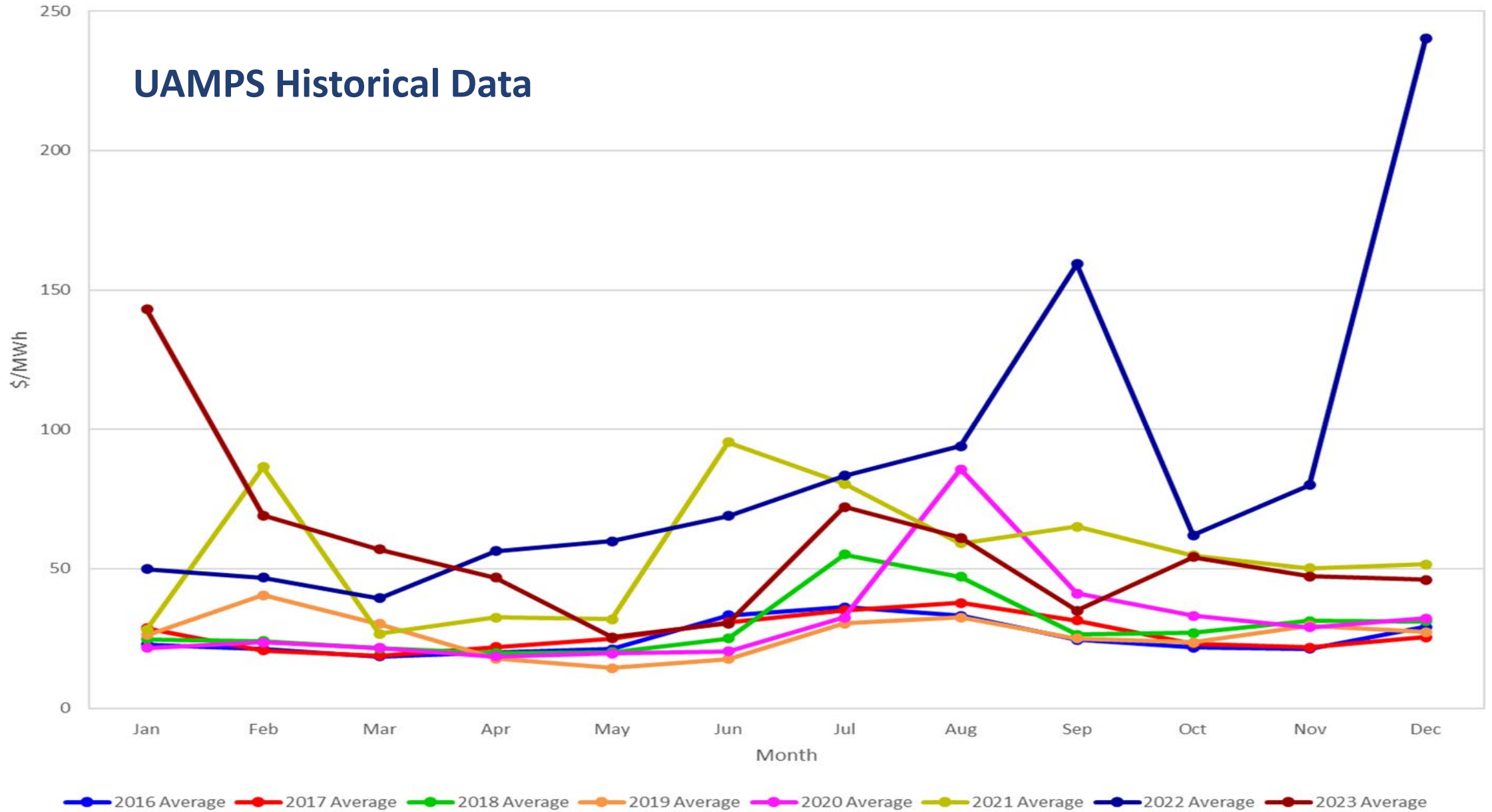
Member Services Project

UAMPS Monthly Average Flat Market Price



UAMPS Unplanned Pool Price - Monthly Average

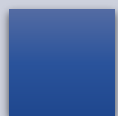
UAMPS Historical Data



ENERGY TRANSITION CHALLENGE

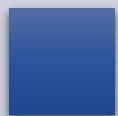


Integrated Resource Plan Recommendations



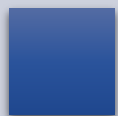
Aggressive Thermal Plant Development / Acquisition

UAMPS should engage and pursue development and acquisition of approximately 300 MW of CCGT and 200 MW of peaking generation (either RICE or CT, or both).



Pursue Competitive Solar & Batteries, as well as Wind

UAMPS should continue to pursue opportunities to identify and acquire PPAs or ownership in up to 300 MW of solar, coupled with 150 MW of BESS, and up to 300 MW of wind generation resources.



Preserve Nebo and Hunter 2 (i.e. extend retirement dates)

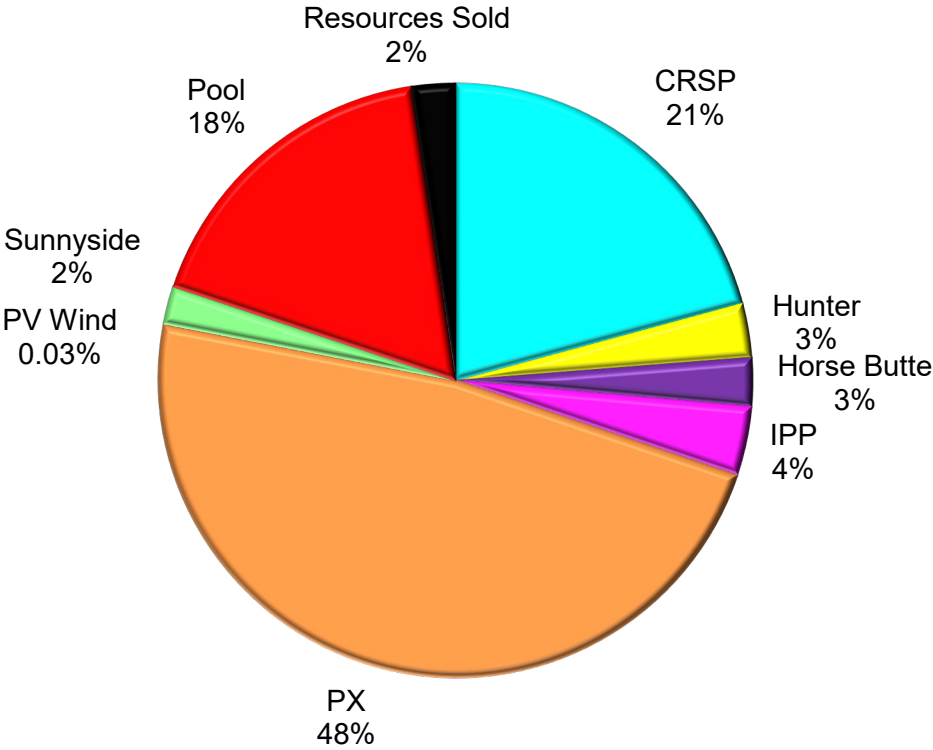
Given both Nebo and Hunter 2 will be reach the end of their commercial operating lives in 2035 and 2032, respectively, UAMPS should evaluate opportunities to extend the lives of both resources and undergo project life extension feasibility .



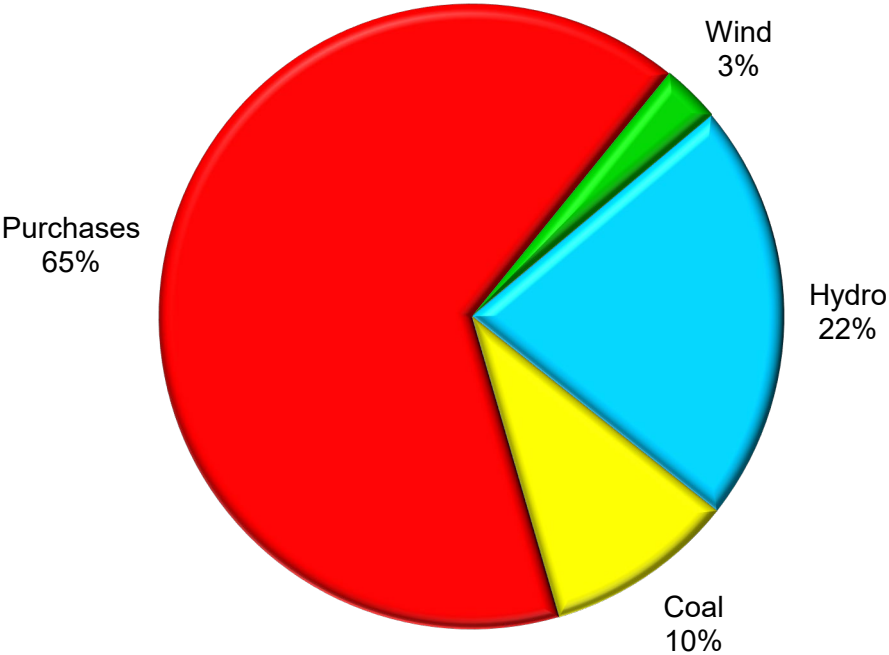
Identify and Procure Land Site Options

Since generation development activities can be long-lead time items, UAMPS should evaluate feasible generation sites and either procure land options for future development or acquire the land now.

Morgan: Resource Usage Breakdown - 2023



Morgan: Resource by Type - 2023



Firm Power Project

- 40 MW Steel Solar IA
 - COD last week of March 2024
- 40 MW Steel Solar IB
 - COD last week of May 2024
 - **Entitlement 50 kW**
- Located in Box Elder County
- 25 year take-or-pay Power Purchase Agreement
- Battery Storage Option



Fremont Solar + Storage

- 99 MW Solar + 49.5 MW Storage
- Located in Iron County west of Paragonah
- 25 year take-or-pay Power Purchase Agreement
- LGIA signed (decreased schedule risk)
- Commercial operation date 2026
- **Study Entitlement 200 kW**



Geothermal

- Pursuing 65 MW of geothermal
- Two locations
 - Winnamucca, NV
 - Fallon, NV
- Commercial operation dates
 - Q4 2027
 - Q3 2029
- 25 year take-or-pay Power Purchase Agreement
- **Study Entitlement 82 kW**



Natural Gas Generation



- Multiprong investigation
 - Small “behind the meter” as well as large projects
- RFP includes:
 - Identification of two sites
 - Transmission LGIA deadline May 15th
 - Additional Enyo Solar + NG
 - Existing LGIA
- Ongoing evaluation to insure economical competitive
 - Technology (Wartisia, GE and CAT)
 - Air permit limitations
 - Water availability
 - Amortization period
- **Study Entitlement 1.1270%**

Implementation of New Tools



FY23 Budget to Actual Dashboard



All-requirements Pool Project Option



Financial Health Checks

QUESTIONS

FY2023

	BUDGET			ACTUAL		
	Dollars	@ Meter	\$ Per MWh	Dollars	@ Meter	\$ Per MWh
Morgan						
CRSP	137,753	5,055	39.12	191,517	4,452	43.02
Hunter	123,274	3,010	40.96	111,415	2,648	42.08
San Juan	97,694	1,586	61.62	123,181	1,225	100.56
IPP	65,497	927	70.66	70,086	1,024	68.44
PX	391,190	6,960	56.20	468,013	7,802	59.99
Firm - Patua	-	-	0%	-	-	0%
Firm - PV Wind	756	13	58.21	636	11	56.91
Firm - Red Mesa	-	-	0%	-	-	0%
Firm - Steel	-	-	0%	-	-	0%
Firm - Enchant	115,692	2,730	42.38	871	-	75.81
HBW	66,202	852	77.66	66,027	-	75.81
Veyo	-	-	0%	879,477	6,699	131.28
Pool	242,676	2,457	98.77	-	-	27%
Nebo	-	-	0%	-	-	0%
MIG	-	-	0%	-	-	0%
Member Resource	-	-	0%	-	-	0%
	\$ 1,300,734	23,589	55.14	\$ 1,910,342	24,732	77.24
Member Peak (MW)	5.98 MW			6.15 MW		

	Difference - Over / (Under) Budget			MWH		
	Dollars	@ Meter	\$ Per MWh	Dollars	@ Meter	\$ Per MWh
Morgan						
CRSP	(6,236)	(603)	18%	(6,236)	(603)	18%
Hunter	(11,859)	(362)	11%	(11,859)	(362)	11%
San Juan	25,487	(361)	5%	25,487	(361)	5%
IPP	4,589	97	4%	4,589	97	4%
PX	76,823	842	32%	76,823	842	32%
Firm - Patua	-	-	0%	-	-	0%
Firm - PV Wind	(130)	(2)	0%	(130)	(2)	0%
Firm - Red Mesa	-	-	0%	-	-	0%
Firm - Steel	-	-	0%	-	-	0%
Firm - Enchant	(115,692)	(2,730)	4%	(115,692)	(2,730)	4%
HBW	(175)	19	0%	(175)	19	0%
Veyo	636,801	4,242	27%	636,801	4,242	27%
Pool	-	-	0%	-	-	0%
Nebo	-	-	0%	-	-	0%
MIG	-	-	0%	-	-	0%
Member Resource	-	-	0%	-	-	0%
	\$ 609,608	1,143	77.24	\$ 609,608	1,143	77.24
Member Peak (MW)	0.17 MW			0.17 MW		

2.8% Peak Difference
4.8% Energy Difference

Key Item Takeaways from Analysis:

- Resource mix diversity - There are 7 resources with one resource accounting for ~21% of the load.
- Resource adequacy can be measured by a member's exposure to the energy markets. FY2023 forecasts show market exposure of ~10% as indicated in the UAMPS Pool Project. This is in keeping with staff's be for less than 10% exposure to the energy markets.
- Fuel adequacy had significant impact on resource availability for CRSP and Hunter. This translated to market exposure as follows:
 - CRSP 603 MWh \$88 per MWh \$53,218.60
 - Hunter 362 MWh \$89 per MWh \$32,258.22
- Exposure to new resources that were delayed or cancelled, which caused replacement power to be procured through the Pool Project or other purchased. This amount of replacement power was 2,730 MWh at an average pool price of \$131.28 per MWh for a total of \$358,408. Moving forward UAMPS staff will be reconsidering what commercial operation dates to include in the member forecasts given supply chain and construction issues that are likely to continue for the foreseeable future.

Participation in New Resource Projects:

- Sunnyside - 500 kW COD 11/1/2023
- Cyrq Study - 82 kW N/A Q4 2022, N/A Q3 2023
- Solar & Battery Studies
 - Fremont - 200 kW COD 6/30/2025
 - Zions - 200 kW COD 11/1/2025
- Natural Gas Study - Resource 1.1270% Est COD 1/1/2028
- Steel Solar 1A - N/A COD 2/1/2024
- Steel Solar 1B - 50 kW COD 5/1/2024
- HBW Expansion - 223 kW COD 12/31/2025

	Updated FY24 Forecast			Budget FY2025		
	MWh	Updated FY24 Forecast	Budget FY2025	MWh	Updated FY24 Forecast	Budget FY2025
Morgan						
CRSP	5,596	4,710	19%	5,596	4,710	19%
Hunter	1,362	1,923	8%	1,362	1,923	8%
San Juan	-	3,986	16%	-	3,986	16%
IPP	1,075	3,134	12%	1,075	3,134	12%
PX	12,702	10,111	40%	12,702	10,111	40%
Sunnyside	1,649	-	0%	1,649	-	0%
Firm - PV Wind	13	13	0%	13	13	0%
Firm - Red Mesa	-	-	0%	-	-	0%
Firm - Steel	22	96	0%	22	96	0%
Firm - Enchant	852	848	3%	852	848	3%
HBW	886	496	2%	886	496	2%
Veyo	-	-	0%	-	-	0%
Pool	-	-	0%	-	-	0%
Nebo	-	-	0%	-	-	0%
MIG	-	-	0%	-	-	0%
Member Resource	-	-	0%	-	-	0%
Total	24,157	25,317	100%	24,157	25,317	100%

