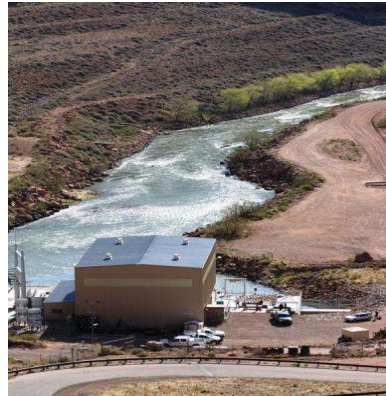


Electric Production Operations Briefing

August 18, 2021
Board of Public Utilities



San Juan Generating Station



Abiquiu Hydroelectric Plant



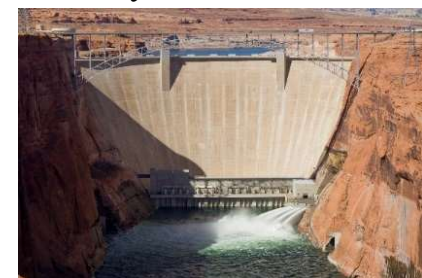
El Vado Hydroelectric Plant



Los Alamos County Solar Array



Laramie River Station



WAPA Hydro Glen Canyon

Agenda

1. LAC Approved Resources
2. LANL's Approved Resources
3. Load Forecasts & Generation Resource/Options
4. CY2020 Blended Cost of Power
5. Performance Metrics
6. Summary of Energy Imbalance Market
7. Back Office & Month End Invoicing
8. Electric Coordination Agreement
9. Transmission
10. County Gas Supply
11. Resource Planning Challenges
12. Staffing Challenges

LAC Approved Resources

- 36 MW SJGS “coal” –September 30th Retirement
- 10 MW LRS “coal” – Life of the Plant (2040 – 2042)
- 17 MW Abiquiu run of the river hydro
- 9 MW El Vado run of the river hydro
- 1 MW Western Area Power Administration WAPA Federal hydro allocation
- 1 MW Solar PV
- Uniper 15 MW ATC, 15 years, 1st Qtr. 2022
- Uniper 25 MW ATC, 2.75 Years, Oct 1-Jun 30 2025

San Juan Generating Station (SJGS)-36 MWs

- Capital- SJGS has no remaining capital projects.
- O&M- SJGS continues to manage staffing issues as it prepares for shutdown. The plant continues to use contract labor to fill in the gaps.
 - A voluntary Reduction in Force was completed after June 30th due to Shutdown of Unit 1
 - Mine Issues have plagued the plant this year.
 - Geological issues
 - Coal Quality
- Decommissioning- Units 2&3 have been partly decommissioned to ensure plant safety
 - Sale of River to Lake Station to USBOR reducing decommissioning liability is in negotiation
 - All of the owners of San Juan are working together to complete the Final decommissioning study.
 - Current and former Ownership are reviewing a Class 1 estimate put together by Burns and McDonnell.
 - Final Decommissioning Study declaration starts a chain of events (Regulatory, Operationally, etc)
 - Final declaration is on hold to ensure the sale option to Enchant is fully investigated
 - Unit 1 – is in a safe shutdown mode and able to restart in the event of a sale to Enchant
- Mine Reclamation Continues
 - Westmoreland's proposal to take over the reclamation obligations from the SJGS participants is on hold for at least a year.
 - SJGS participants have Trust funds established for this obligation that are being considered in proposal
 - LAC has funded a Mine Reclamation Trust and continues to ensure it is properly funded as study estimates fluctuate.
 - The Mine Reclamation Oversight committee intends to commission a new study due to periods of high inflation. The intent is to have the study completed in 2023 and new funding curves established and funded at the end of 2023.

San Juan Generating Station City of Farmington (COF) Proposal

- COF continues to work with Enchant Energy to operate the SJGS post 2022.
- COF and Enchant continue to meet with SJGS Participants to work on a term sheet.
- Clean break from obligations and liability for the SJGS are being sought
 - Decommissioning
 - Mine Reclamation
- Economic viability of the Carbon Capture project is being developed
- Surety bonds on top of the decommissioning trust fund are required in the event Farmington and or Enchant bankruptcy
- Time is running out:
 - Burns and McDonnell have obtained bids to complete decommissioning work starting in 2023
 - Mine Reclamation activities have already begun, however Ownership was seeking a clean break.

Laramie River Station (LRS)-10 MWs

- LRS continues to be one of LAC's most economical resources
- Tube leaks continue to be a reoccurring issue
- Decommissioning
 - In 2015 LAC was provided Decommissioning Study for LRS. We have funded to our proportional share and continue to fund for inflationary adjustments.
 - As of now, plant closure and decommissioning is slated for 2040-2042

Laramie River Station (LRS)- Cont.

- Unlike SJGS, Mine Reclamation is built directly into fuel costs. LAC is in a good position regarding funding obligations.
- LAC continues to look for opportunities to capitalize on its long-term agreement by potentially swapping for renewable resources. (Uniper proposal, Arevon, Guzman and Tenaska)
- LAC, in parallel is also looking to negotiate a hard exit from LRS if the option exist in accordance with the Board adopted Strategic Initiatives.

Federal Hydro Power Allocation

- LAC's entitlement is 1MW
- DOE's entitlement is 10MW
- We have only been receiving between 60%-70% of our allocation from the Hydro Dam
- LAC has been able to avoid most of the increased pricing due to a positive reserve margin
 - We started taking the energy in July due to CT outage
- Drought conditions continue....

Landfill Solar PV array

- Solar site is 1,000 kW or 1 MW
- Currently 400 kW of the PV array is off-line due to failed inverter.
 - The Solar vendor selected to repair/replace the equipment failed to perform.
 - LAC has a proposal on the street to get the PV Site going again.



Ideal for rooftops,
carports and ground-
mount PV systems

Battery Energy Storage System BESS- Decommissioning

- Batter System was roughly 1.8 MW
- DPU has submitted the Invitation for Bids draft to Procurement.
 - Procurement is in the process of soliciting Bids
 - Last year's solicitation was halted due to appraisal issues for the assets.
- Procurement obtained an appraisal on the Lead Acid battery per the policy and is very close to publishing the bid.



800 kW x 2.3 MWh lead-acid battery



1-MW x 6 MWh NaS battery

Uniper – Firm Wind and Solar

- The Uniper 15 MW contract began supplying the Power Pool on January 1 2022
 - Pattern Wind portion of the project is completed in Eastern New Mexico
- The solar portion of the contract is in the four corners area and has a Commercial Operation date, 2023
- The Uniper 25 MW contract will begin to supply the Pool on Oct 1, 2022

Market

- Awaiting responses to LAC's Request for Information
- Our expected reliance on Market Purchases was increased due to the CT Outage.
- LAC has purchased its San Juan Replacement and energy will begin in flow on Oct 1, 2022
- Drought and threat of widespread heat are still threatening the grid and are priced throughout the summer
- The Power Pool has submitted interest in a Geothermal Project as part of UAMPS Resource Project.
 - Our share of these investigatory costs should be around \$5,000.00

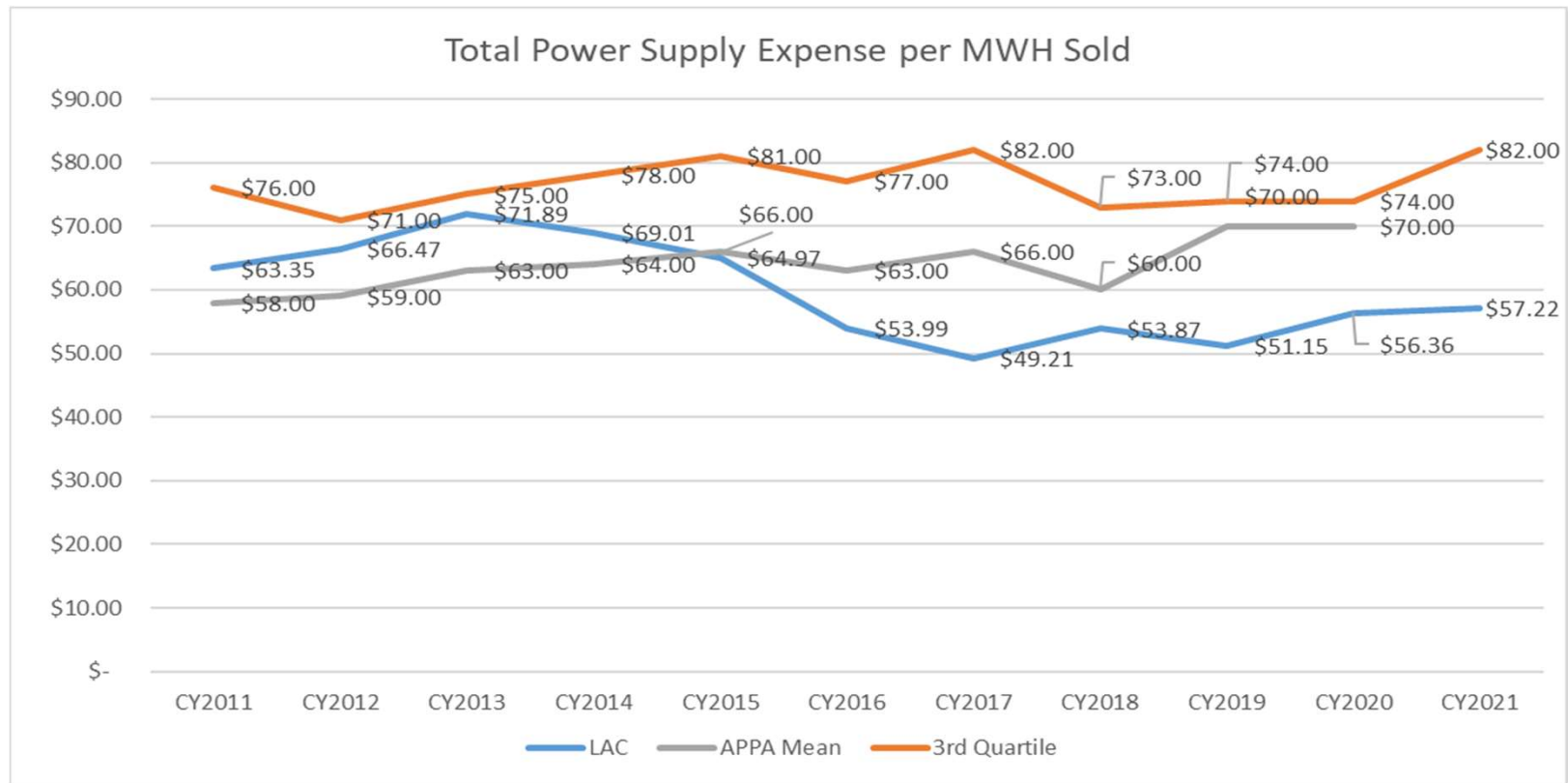
DOE Resources

- Western Area Power Administration (WAPA)
 - Up to 20 MW of Firm Federal hydro power, 15 MW of Capacity
- CT 25 MW Gas Turbine- Available mid to late August
- Local 115 KV transmission lines and substations to delivery power from interconnections with Public Service Company of New Mexico to LANL & LAC
 - DOE-NNSA Third Transmission line
- Supervisory Control And Data Acquisition (SCADA)
- Future potential combined cycle conversion to 45 MW and 10 MW Solar Array

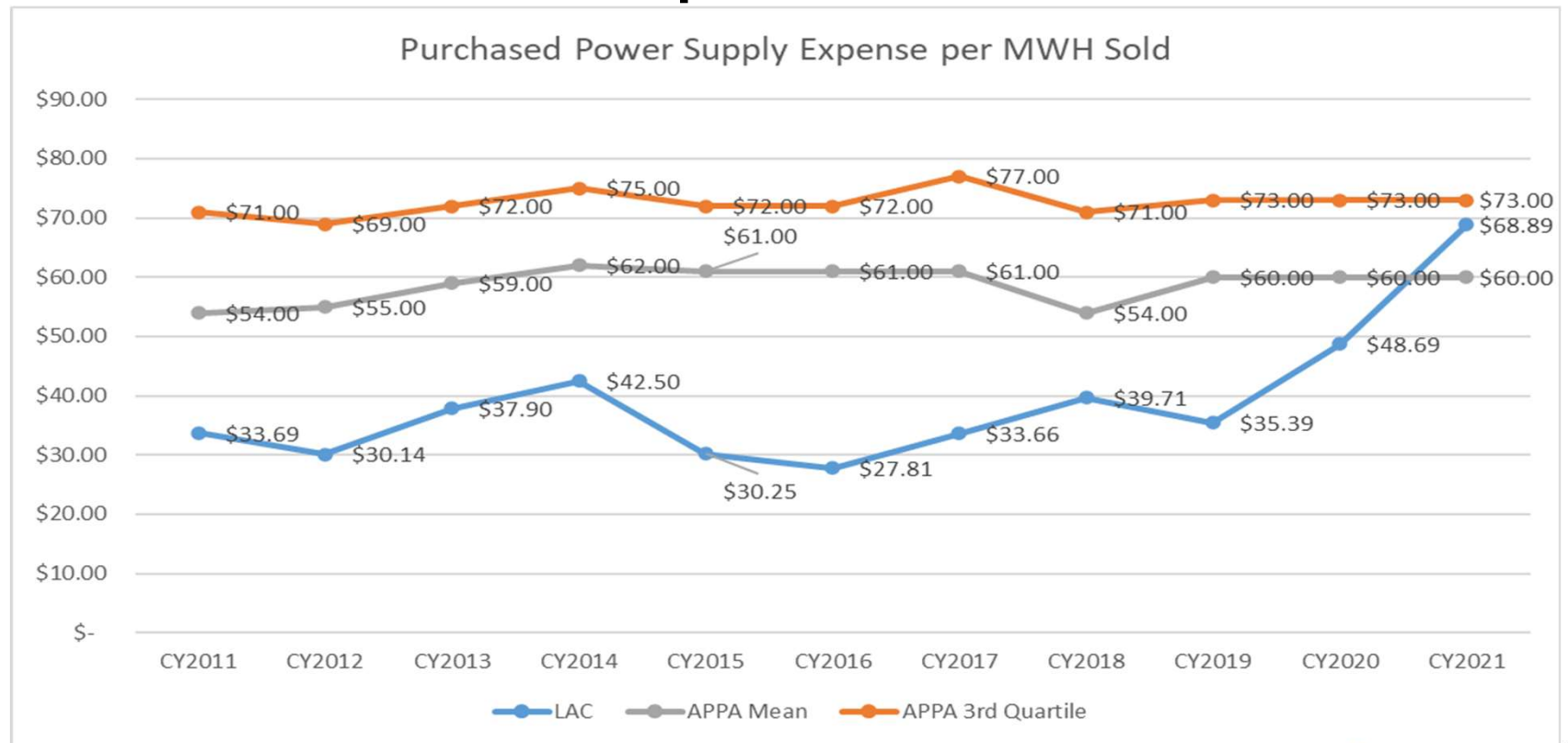
CY2021 Blended cost of Power

RESOURCE UTILIZATION and COMPONENT COST SUMMARY											
Calendar Year to Date											
CY2021											
		FY Peak	Total								
		MW	MWH		TOTAL \$		\$/MWH				
	DOE	55.266	360,807		25,222,945		69.91			FY Peak 90.337	
	LAC	15.667	118,493		7,469,954		63.04			8/25/2021 @15:00	
	TOTAL	70.933	479,300		32,692,899		68.21				
Month/Yr	Sources	Rated KW	MWH Sched	Demand Cost	Energy Cost	Demand \$/MWH	Energy \$/MWH	Total \$/MWH	CF%	% Total MWH	% Total \$
	Abiquiu	14,000	19,695	415,771	222,461	21.11	11.30	32.41	21.3	4.11%	2.33%
	Control Area					N/A	N/A	N/A	N/A	N/A	N/A
	Economy Purch		129,704		8,935,798		68.89	68.89	N/A	27.06%	32.58%
	Economy Sales		-10,929		-344,384		31.51	31.51	N/A	-2.28%	-1.26%
	El Vado	10,000	8,285	140,406	499,042	16.95	60.23	77.18	12.6	1.73%	2.33%
	Lincoln	10,000	53,964	1,186,573	817,827	21.99	15.16	37.14	81.8	11.26%	7.31%
	Misc Expense			1,496,312		N/A	N/A	N/A	N/A	N/A	5.46%
	Misc. Interchange		-10,497						N/A	-2.19%	N/A
	PV Solar		227	10,019							
	San Juan	36,000	213,692	4,640,891	6,964,964	21.72	32.59	54.31	89.9	44.58%	42.32%
	TA-3 Steam	20,000				N/A	N/A	N/A	N/A	N/A	N/A
	CGTG	24,000	91	4,024		44.17		44.17	0.1	0.02%	0.01%
	WAPA (LAC)	1,000	5,095	75,117	55,494	14.74	10.89	25.64	77.2	1.06%	0.48%
	WAPA Firm (DOE)	11,000	69,973	1,383,129	920,970	19.77	13.16	32.93	96.4	14.60%	8.40%
	WAPA Peaking (DOE)					N/A	N/A	N/A	N/A	N/A	N/A
	Total		479,300	9,352,242	18,072,172	19.51	37.71	57.22		100%	100%
	Transmission Cost			5,409,914		11.29					
	DOE Revenue for EIA		360,806.87	26,560,895							

Performance Metrics- Total Expense

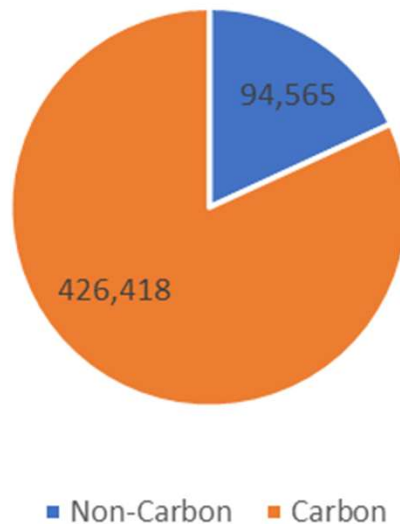


Performance Metrics- Purchased Power Expense



FY 2022 Resource Mix

Los Alamos Power Pool Resource Mix FY22
(MWhs)-Non-Carbon 18.15%



Resource	Classification	MWhs Produced
Abiquiu	Non-Carbon	18,050
WAPA (LAC)	Non-Carbon	4,221
WAPA Firm (DOE)	Non-Carbon	56,965
El Vado	Non-Carbon	5,604
Uniper Renewable	Non-Carbon	9,725
Non-Carbon Total		94,565
Economy Purch incl. Uniper	Carbon	149,706
Lincoln	Carbon	54,480
San Juan	Carbon	222,209
CGTG	Carbon	23
Carbon Total		426,418
Total Energy Generated		520,983

Post 2025 ECA Negotiations

- Summer 2019, staff presented DPU's position on a post 2025 ECA to the Board and "Council subcommittee for concurrence and guidance.
- In October 2019, the post 2025 ECA options were presented to DOE/NNSA for consideration.
- DOE presented first draft of the agreement with Term sheet, July 2021 negotiating meeting.
- LAC and DOE are working on finalizing the Statement of Work and Exhibits for the future Contract
 - Board and Council policy committee were consulted on some of the terms in March of 2022

Target Dates for ECA

- Both Parties agree to explore contract assuming DOE-NNSA has Interagency Agreement with WAPA allowing them to contract for 40 years under WAPA's authority to secure the necessary resources to meet LANL's load projections
 - A recent memo from the procurement officials with in the NNSA is very promising regarding the ECA
 - Allows for up to 20 year terms within the NNSA
 - Allows NNSA to evaluate solicitations on environmental factors rather than lowest cost
- In the interim period prior to having the IA completed, the LAPP will operate within the current constraints, securing a PPA to meet the load requirement for the LAPP from 2022 through June 2025
- June 2023 Negotiating teams develop tentative agreement. LAC disposition of excess generation will have to be dealt with 24 months prior to contract expiration if parties have not reached a tentative agreement.
- June 2024 LAC & DOE-NNSA seek approval of post 2025 ECA
- June 30, 2025, current ECA expires and Post 2025 ECA begins

Transmission and Transmission Contracts

LAC is reviewing existing Transmission contracts due to market and regulation changes.

- PNM
 - Federal Energy Regulatory Commission (FERC) 864 Filing
 - Received FERC Response in July of 2022, Further settlement discussion to follow
 - Open Access Transmission Tariff (OATT) Revision - resulting from joining Energy Imbalance Market
 - NITSA/NOA Documents finally updates and will be presented to Board and Council in August
 - 2022 Annual Formula Rate True-Up
- LRS WAPA Transmission Renewal
- LANL
 - 3rd Transmission Line- Still talking stakeholder input on route from Norton
 - TA-3 Substation- Online

Transmission- Schedule for NORA Upgrade

- Transmission Northern Rio Arriba Co-op (NORA)-
 - The 69 kV Transmission line From the Coyote substation to the Spills Substation that LAC utilizes to export power from EL Vado is in need of complete replacement (poles and wires).
 - 2020 Mid August- NORA will begin phase one starting at the Spills Substation and heading south approximately 10 miles with a new parallel line in the existing ROW.
 - 2022-2023 NORA will start at the Coyote substation going North approximately 10 miles with new parallel line in existing ROW
 - 2023-2024 NORA will start the middle 10 mile section after they have secured the additional ROW to construct the new line in parallel

County Gas Supply

- Daily gas nominations
- NMMEAA
- System Alerts, NM Gas Company
 - Just completed a rate case with with NMGC, Proposed increase of 26% was reduced to 9.7%
- Extreme weather events
- Utility Operations (gas water well Pajarito Well No. 4)

Resource Planning Challenges

- RFI-Pending
 - Drought Impacts (WAPA and LAC Hydro)
 - Regulatory Impacts (SJGS, LRS)
 - Increased reliance on volatile market power pricing
 - Dispatchable resources to balance load and generation
 - Electric Coordination Agreement
- (Mitigate risks with Integrated resource planning)

Staffing Challenges

- Currently seeking a Power System Supervisor

Questions

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