

2021 Summer Peak Power Demand- Briefing of Planned Activities

Presented to the Board of Public Utilities
June 16, 2021

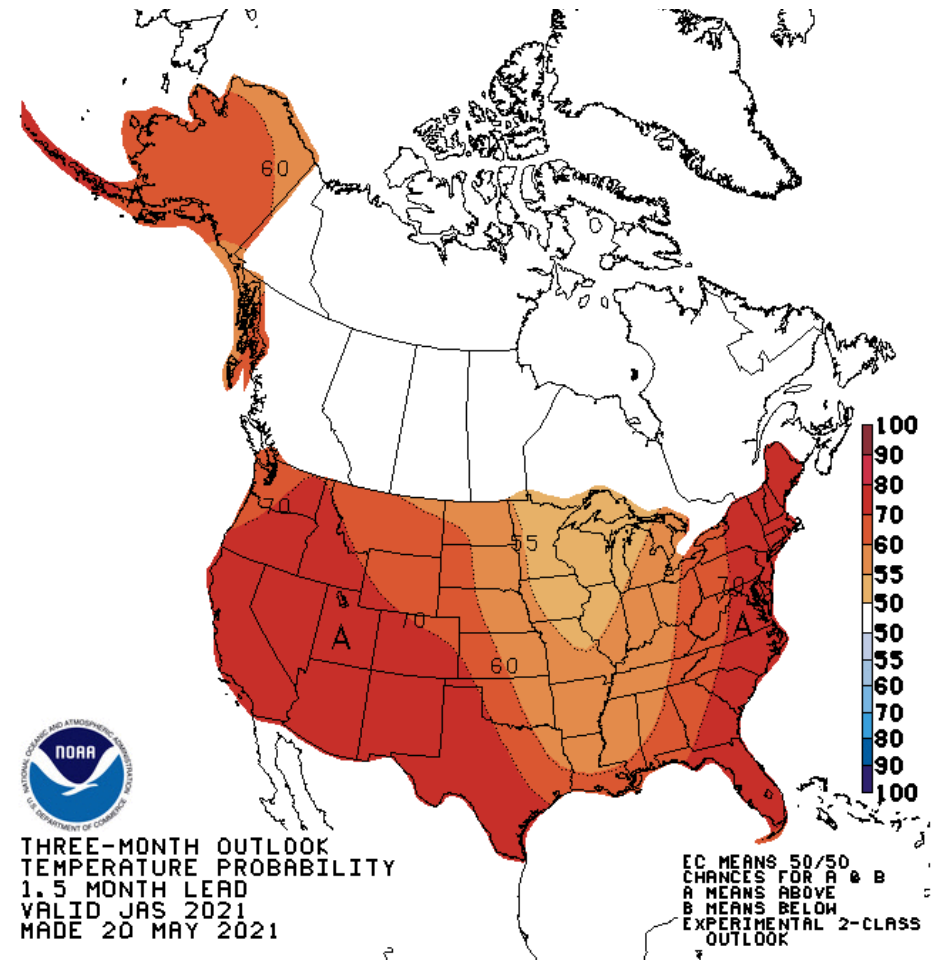
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Electrical Production

Why are we providing this update?

- Last year was a unique year in which Summer and Winter weather events drove prices upward.
- Forced Unit Outages at San Juan and Laramie River Station drove LAC to the Open Market.
- Last Summer, LAC saw prices as high as \$1,695.00/MWh
- LAC's cost impact was roughly \$3M dollars from Last Year's Summer event for both Sandia/Kirtland and the Los Alamos Power Pool
- Supply Issues plagued the Western Interconnect. Many Balancing Area's declared Energy Emergencies.
- LAC is committed to ensuring adequate supply and limiting cost exposure as much as possible

Q3 Weather Forecast

- Widespread heat simultaneously throughout the Western interconnect is the greatest threat and a cause of last years issues.
- Other major issues LAC is monitoring:
 - Generation Availability
 - Duck Curve Ramping Capabilities
 - Bilateral Trading Availability



Thermal Units

- San Juan:
 - 2020- Was in Forced Outage during the major heat event.
 - 2021-We are planning full availability
- LRS:
 - 2020- One Unit was Offline due to Forced outage
 - 2021-We are planning full availability
- Laboratory Combustion Turbine
 - 2020-Unit was Offline for upgrades
 - 2021- We are planning full availability

Hydro Units

- WAPA AHP- DOE & LAC
 - Allocations remain the same.
- El Vado
 - Last Year El Vado Averaged 4MW. We are expecting this to be reduced to 1MW as the Lake is dropping due to preparations for the Dam Repair.
 - See supplemental slides for forecast information
- Abiquiu
 - We are expecting roughly the same output from Abiquiu as last year.
 - See supplemental slides for forecast information

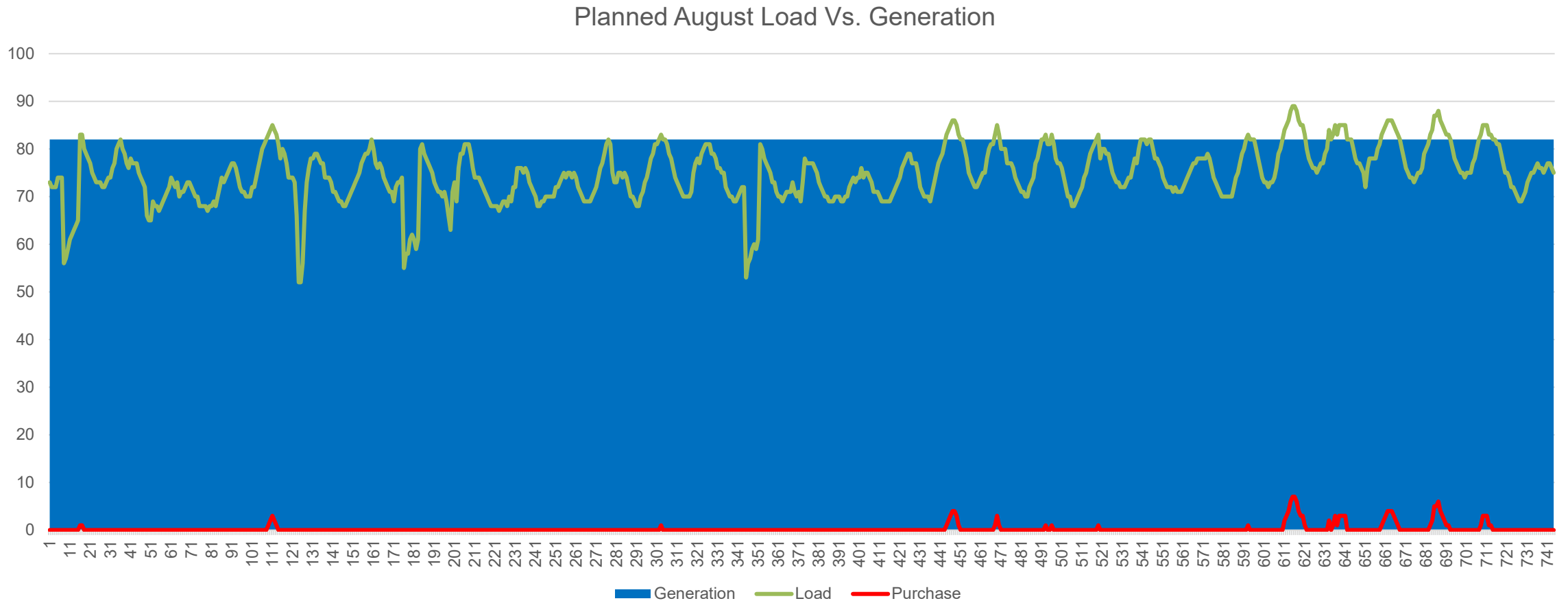
Purchased Power

- We currently aren't projecting a major need for Purchased Power during this High Load Period for the Los Alamos Power Pool.
- LAC will still have to Purchase for Sandia/Kirtland. LAC roughly has three options
 - Buy months in advance for set block
 - Purchase Call Options
 - Rely on shorter term purchases including real-time

Load Vs. Generation: August Forecast

- August Anticipated Average Load 80 MW
 - San Juan output- 36MW
 - LRS Output-10MW
 - WAPA AHP-10MW
 - Abiquiu-4 MW
 - El Vado-1MW
 - LANL CT-21MW
- Total Supply 82 MW
- Peak anticipated to be around 93MW

Load Vs. Generation: August Forecast



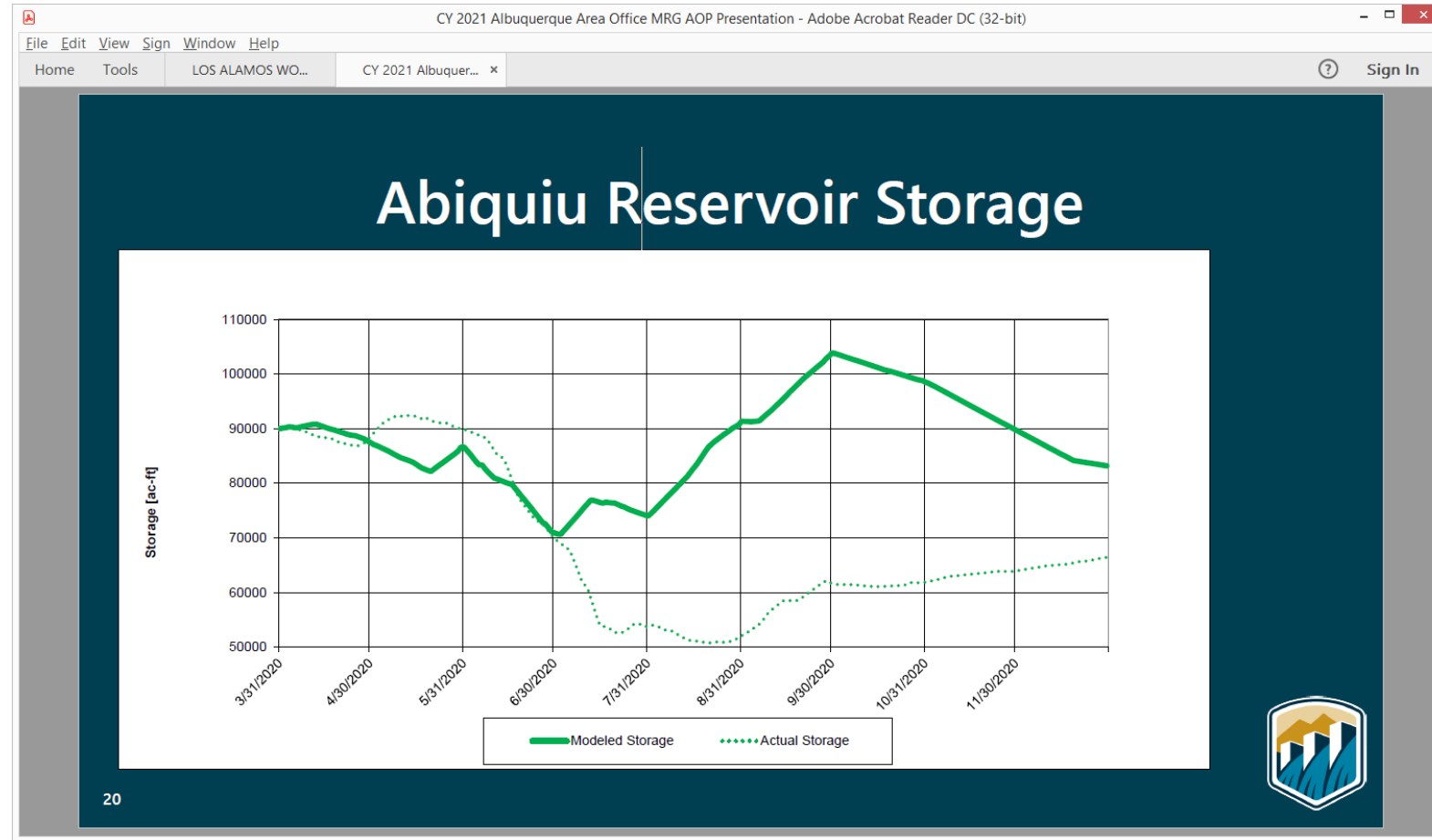
Purchased Power Cont.

- Months in Advance:
 - Pros- Secure Firm energy early
 - Cons-Highly reliant on the speculations pricing which are very high due to last year's occurrence
 - If Purchased Energy would cost \$160/HL and \$60/LL, we would pay this prices for a block of energy and the block would have to accommodate our load. The pool as demonstrated in graph above is not in need of a block of energy.
- Call Options:
 - Pros-Secures Firm Capacity to be called upon if needed. Cheaper than regular energy
 - Cons-Current pricing for Call options are very high. Strike pricing is even higher. Very expensive insurance for this time period
 - If purchased \$60.00 Capacity Charge with a \$125.00 Strike Price @ 25MW this is almost \$1.2M
- Short-Term Purchases:
 - Pros-Allows for better pricing should the summer weather be better than anticipated. Allows flexibility of purchases that can be more tailored to load.
 - Cons- Bilateral liquidity problems, Prices can be higher if generation sources are scares or Load is higher than expected
 - We anticipate costs will be less than the \$165/\$70 for most of the month

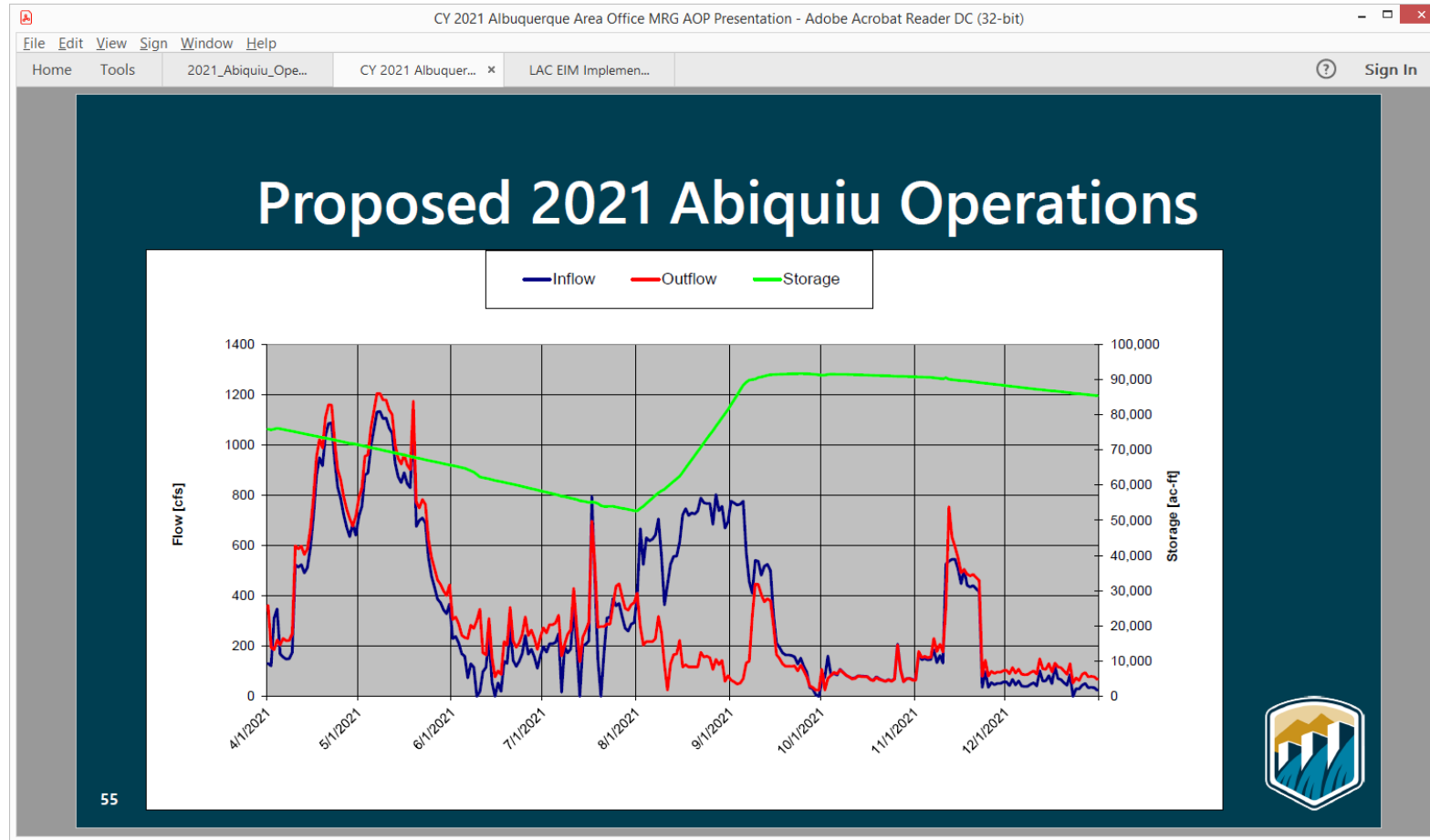
In Conclusion

- We have chosen to pursue short-term purchases at this point.
 - We are going to utilize WAPA Replacement Power, Day ahead Purchasing, and real-time purchasing
 - The pool is in need of 170 Mwh from the open market for the month of August. At the forecasted price of \$160.00 the total is planned to be \$27,200.00
- The Pool is predicting purchasing very little energy. If the pool had to purchase at last year's peak pricing, 170 Mwh @ \$1,695.00/Mwh \$288,150.00. This is still significantly less than the cost of the call option.

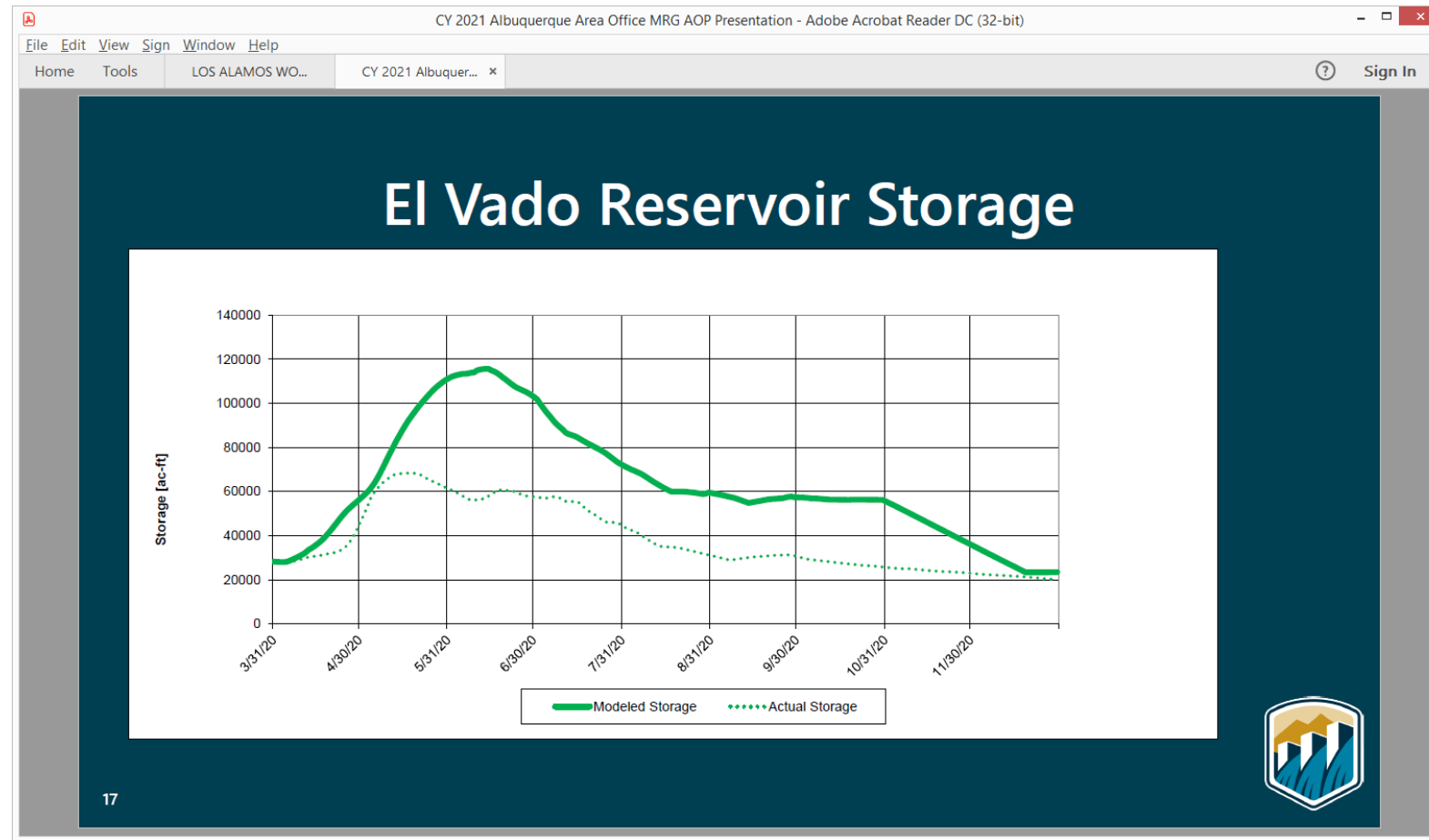
Hydro Supplement Slides-Abiquiu 2020



Hydro Supplement Slides- Abiquiu 2021



Hydro Supplement Slides- El Vado 2020



Hydro Supplement Slides-El Vado 2021

