

Monthly Board Report – 4/13/22



Agribusiness and Water Council/NWRA

- GRRC Approved Cage-Free Rule – AZ Dept. of Ag
- Senator Feinstein Introduced the STREAM Act
- The STREAM Act would authorize:
 - \$750M for storage and conveyance projects, including \$50M for natural water retention and release projects
 - \$300M for water recycling projects
 - \$250M in environmental restoration funding
 - \$150M in desalination funding
 - \$100M for drinking water assistance to disadvantaged communities
 - \$150M for loans at 30-year Treasury rate (RIFIA)
- The Senate Indian Affairs Committee took up tribal water rights bills for S.3308, the "CRIT Water Resiliency Act of 2021," and S. 3168 to extend an agreement with White Mountain Apache Tribe from 2023 to 2025
- Democrats moving to ban the trading of water and water rights, to prevent speculation that could trigger price spikes as drought continues in West
- US-Fertilizer Prices set to increase 12% in 2022, after Going Up 17% in 2021.

American Public Power Association

- APPA, EEI, & NRECA seeking regulatory pathway for the expanded use of drones beyond visual line of sight (BVLOS).
- City of Valley Center, Kansas, issued municipalization feasibility study
- NYPA awarded \$102K grant through DEED program to evaluate ways to integrating dual-land use for agriculture and solar energy production
- APPA working with Sen. Shelby (R-AL) to get language that PMAs have the ability to set their own rates; trying to ensure the language doesn't score
- CEO Joy Ditto spoke to federal hydropower council, emphasizing the importance of federal hydropower to APPA members; raised the joint costs issue and expressed concerns that this could make federal hydro unviable
- Jim Matheson/NRECA testified last week at EPW hearing

- NRECA asking USPS to drop an unprecedented postage rate hike.
- City of Chandler, Accepting Cryptocurrency as Payment Utility Bills

Bureau of Land Management

- Budget Request of \$153M from the \$137M Wild Horse and Burro Program
- 86,189 wild horses and burros roaming 27M ACs in 10 Western states- 3X Max # of animals BLM says rangelands can sustain without causing damage
- Interior has included standard language that would forbid any appropriated money being used to destroy "any healthy, unadopted" wild horse or burro

Bureau of Reclamation / DOI

- Senate Appropriators Pressed Acting Commissioner David Palumbo on How the Agency is Addressing the Persistent Drought Across the West
- Senator Feinstein Pushing for WIIN Act Funding as Counter to Drought
- Boulder Canyon 2023 Composite Rate Increasing by 9.1%
- Michael Brain Appointed as Reclamation's Deputy Commissioner
- \$4.1 million to buy land for Saguaro National Park in AZ
- DOI budget to rise to \$17.5B in net discretionary spending, a 24% Increase
- DOI Budget Includes Funding for 30 by 30 Program
- Senate passed S. 1320, the "Chiricahua National Park Act," SE in Arizona
- DOI Budget Includes \$11.5M for the Lower Colorado River Operations Program to implement DCP to maintain elevations at Lake Mead
- BOR Providing \$100M for the modification of B.F. Sisk Dam in California
- DOI Could Reduce Flows from Lake Powell in an effort to prevent the shutoff of hydropower at Glen Canyon Dam
- BOR approves an additional \$17.5M for drought resiliency projects
 - 10 Projects in CA, NV, TX & UT receive more WaterSMART funding
- DOI Issues \$9.5M in Funds for Wildlife Corridors and Habitat Conservation projects in seven states and three tribal nations
- 17 Tribes in 8 states will receive \$3M to support water projects
 - Fort McDowell Pumping System Replacement, \$200,000 (Arizona)
 - Fort Mojave Tribe Irrigation Pump Replacement, \$200,000 (Arizona)

- San Carlos Apache Water Metering Project, \$200,000 (Arizona)

California

- CA Wants to Increase Storage 500% Over 4 Years, But Can't Find the Parts
- CPUC's Battery Plan-2.5GW in 2022, 4.6GW, 10.6GW & 12.5GW in 2023-25
- CA Supreme Court denied PG&E Petition, Validating that South San Joaquin Irrigation District can Provide Electric Utility Service to its Customers
- CCA Sonoma Clean Power issued RFI for development of geothermal in Geothermal Opportunity Zone (Sonoma & Mendocino Counties)
- Community Power board voted to enter into 50MW/400MWh Goal Line long-duration energy storage project.
- Water Officials slashing State Water Project allocations from 15% to 5%
- BOR & DWR Seek Temporary Changes to Delta Outflow Requirements to Preserve Water Storage Amid Extreme Drought Conditions
- SCOTUS has agreed to hear a challenge to California's Proposition 12.
 - Proposition 12 Required a Certain Amount of Space Per Hog
 - Believed to have Direct Implications on Cage-Free Egg Rule in AZ
- CPUC Approved Additional \$40M to Promote Heat Pump Water Heaters on
- Drought Could Impact CA Hydropower Again this Summer
 - State Gets 10% of Energy from Hydro

Colorado River Energy Distributors Association

- Potential 55%-200% Rate Increase w/ Minimum Power Pool
- WAPA Considering Using @ \$85M of \$500M for CRSP in 2023
- 1 in 4 Chance Lake Powell Below Minimum Power Pool by 2024.
- 55 Year of Sediment has Shrunk Lake Powell Capacity 1.8 MAF
- Drought continues to worsen
- CREDA Asking WAPA to Run Some Scenarios if GCD reaches 3490'
 - Would triple the rate
 - AMP Being pushed by NPS & USGS Regarding Experiments are available to be done this summer
 - HFE with bypass of generators was taken off table
 - Bug Flows still Possibility; Steady Flows for 36 days

- Experiments at Flaming Gorge also being talked about
- CREDA/IEDA filing reply in Colorado River litigation
- WAPA \$500M in PPW Provided in Infrastructure Bill Still Being Debated
- Presidential Budget Proposed \$21.4M appropriated for UC/SJ RIP programs

Department of Energy

- Energy Efficiency and Renewable Energy Budget \$4B for “accelerating the research, development, demonstration, and deployment of technologies and solutions to cut energy costs through low-cost clean energy resources.”
- ARPA-E would receive \$700M to expand its scope beyond energy technology focused projects to include climate adaptation and resilience
- Clean Energy is Fueling White House Proposal to Increase DOE Budget by 7% or \$3.3 billion, to \$48.2 billion in fiscal 2023
- WH Seeking \$1.2B to Jump-Start Clean Energy Manufacturing Capabilities
- DOE Announced Strategy for Lithium Battery Manufacturing
- DOE Lab Investigates Geothermal Lithium Resources (Salton Sea)
- Secretary Granholm and Senator Manchin III (D-WV) Unveil Program to Develop Lithium Batteries the U.S

Environmental Protection Agency

- EPA Budget Request \$11.9B, a \$2.6 billion or 29% increase from the 2021
- Budget adds more than 1,900 FTE, for more than 16,200 FTEs,
- President’s Justice40 – 40% of Benefits of Federal Investments in Climate and Clean Energy Reach Disadvantaged Communities
- Air Quality Testing- \$1.1B to Improve Air Quality, Reduce Localized Pollution, Reduce Radiation Exposure, & Improve Indoor Air
- \$4B for Water Infrastructure, an increase of \$1 billion over the 2021
- Court of Appeals Stayed [Louisiana v. Biden](#) Allowing Use of Social Cost of Carbon Use, Court Said States Lacked Standing to Sue
- White Paper- GHG Control Options for New Natural-Gas Power Plants
- EPA Published FRN Removing Stay of National Emission Standards for Hazardous Air Pollutants Applicable to Stationary Gas-Fired Turbines

- Supreme Court Hears Arguments in Affordable Clean Energy Rule Appeal
 - Parties Briefed Justices on: the Statutory Construction of Clean Air Act §111(d), Major Questions & Nondelegation Doctrine & Standing
- EPA Proposed Federal Implementation Plan to address 2015 National Ambient Air Quality Standard for Ozone Under the Clean Air Act.
- 50% of Assessed River and Stream Miles Remain Impaired with Pollution, as well as 55% of Lake Acres and 25% of Estuary Miles
- EPA Revoked “Sue and Settle” Edict
- Supreme Court Limits States’ Authority Under CWA for Infrastructure
- EPA Eyes Adaptable WOTUS Rule for Regional Differences & Durability

FERC

- FERC Considering Market Rule that Would Compensate “Flexible” Generation Resources — Including Hydropower, Wind, Solar & Storage
- FERC Backtracked on Gas Policy Statements issued just last month
 - General Policy for Granting certificates for pipelines and LNG project
 - Assess Impacts of Gas Infrastructure Projects on Climate Change
- Charge Act of 2022, Aims to Spur Growth of Power Lines and Infrastructure by Expanding oversight of FERC
- CHARGE Act, S. 3879, Would Require Planning by FERC to Undertake Large, Interregional Transmission Projects at least Every Three Years
 - Planning would Prioritize Lower Costs for Customers, Grid Resiliency Decarbonization Goals, and Severe Weather Scenarios
- FERC Chair may See Climate Change Efforts Cost Him his Job
- Wyoming Sen. Barrasso, Introduced a Bill to Halt New FERC Policies that could Impose Stringent Regulations on New Natural Gas Pipelines
- FERC Signed off 3 New Natural Gas Pipelines, one in NY State
- FERC Issued its Long-Term Strategic Plan which Outlines Six Critical Priorities Over the Next 5 Years
- Rep. Lawmakers Investigating Allison Clements for Conflict of Interest

Financial Focus

- Feds Raised Interest Rate 0.25% on March 16th
- Feds Anticipate Raising Interest Rates 3X in 2022 & 2023 & 2X in 2024
- Investors are Bracing for 6 Interest Rate Hikes in 2022
- Recent Developments Looking Like Faster Increase in 2022
- Rising Interest Rates Threatening the Municipal-Bond Boom on Wall Street
- National Debt Crossed Over \$30T
- Social Security to Run Out of Money by 2035
- Unemployment Hit 4% in February 2022
- AZG&T a Supporter of Southeast Arizona Economic Development Group
- Top 10 Risks of 2022
 - Prolonged Business Interruptions
 - Virus/Mutations
 - Permanent Inflation
 - Pace of Central Bank Actions
 - Global Rebound/Rebalance
 - US Fed Fiscal Withdrawal
 - Interest Rate Volatility
 - Stock Market Slowdown
 - Rising Interest Rates
 - Geopolitical Risks
- Due to Inflation, Monetary Tightening & Geopolitical Risks, Growth Forecast Down to 4.4% in 2022 & 3.6% in 2023
- For Advanced Economies, 3.9% in 2022 & 2.6% in 2023
- Sanctions and Suspension of Trade Relations with Russia & Belarus
- Russia Roughly the Economic Size of Canada
- S&P Up 27% in 2021
- Highest Inflation Since the 1980s
- Labor Participation Down @1% to 62.3%, No Legal Immigration Either
- SEC Proposed Climate-Related Changes to Financial Disclosure Rules
 - Electric Generators Required to Report Emissions
 - Municipal Debt-Issuing Entities Environment-Related Financial Risks
 - Entities Issuing Climate-Labeled Debt, for example “Green Bonds”
- Public Power Debt Issuances are Not Subject to These New Rules, but would be affected nonetheless

- The Federal Reserve has mapped out an initial strategy of three overnight federal funds hikes in 2022, three more in 2023 and two in 2024.

Hydrogen

- Manchin Wants One of the Four New Hydrogen Hubs in WV
- DOE Office of Fossil Energy and Carbon Management is Investing \$2.4M in Three Projects for High-Temp Thermal Energy and Hydrogen Storage
- There are Unique Challenges to Blending Hydrogen in Gas Streams
- Turbines, Gas and Hydrogen Respond Differently to Combustion
- 450% Jump in European Gas Prices Advancing Green Hydrogen as Viable Substitute for Fossil Fuels in Manufacturing, Transportation and Heating.
- EU Bloc's Carbon Price has Nearly Doubled in the Past Year
- EU Doubled its Goal for Green-Hydrogen Capacity to 80 GW by 2030
- U.K. Targeting at Least 5 GW of Hydrogen from Electrolyzers by 2030
- DOE Studying Converting Alabama Gas Plant To Run Partially On Hydrogen

Industry Update

- 3 Emerging Trends: Shifting Power Generation, Batteries and EV Adoption
- US Household Electricity Expected to Increase 25% by 2040 Due to EVs
- Russia Produces 37% of World's Palladium (Battery Component)
- Underground Pumped Storage Project (15MW) Planned for TX
- 412 GW of new generation under development in U.S., a 10% over 2021
- Of this, 113 GW is under construction or permitted, and 299 GW Proposed
- Q4 Record in U.S. energy storage with new installations of 4,727 MWh
- EV Demand Likely to Overwhelm Grid by 2028 Unless Capacity is Added

Markets

- Tacoma Power Joined CAISO Operator's Western Energy Imbalance Market
- CAISO Board of Governors Approved 10-YR Transmission Plan
- MISO - Business Case to Justify Seven New Regional Transmission Projects

Meetings

- WAPA BCP Rates Webinar – March 16th
- CREDA RIC Discussion – March 17th
- ABWC – Maricopa Water District – March 18th
- APA C3 Meeting on EIM – March 21st
- CRCNV & KRS Meeting for P/DP Intertie – March 22nd
- Senate Natural Resource, Energy & Water – March 23rd
- Meeting w/ Ted Cooke & Tom Buschatzke – March 23rd
- APPA NERC Reliability Call – March 24th & 31st
- Meeting w/ Buchanan Davis – March 24th
- Unification Project – AMPUA – March 24th
- Vacation Day – March 25th
- CREDA Legislative Work Group – March 28th & April 4th
- Meetings with State Legislators (Abraham, Carroll, Shope, Quinonez, Dunn– March 29th & 30th
- Phoenix International State of the State (SRP) – March 30th
- BOR/WAPA P/DP Orientation – March 31st
- PMA Task Force – April 1st
- AMPUA – April 1st
- Call w/ Mike Peterson – WAPA CFO – April 5th
- CREDA – April 7th-8th, Salt Lake City, UT
- Federal Office Meetings– April 11th & 12th - Kelly, Lesko & O’Halloran Staff
- New Magma/ED6 Tour – April 13th
- ACM – Hydrogen Presentation by Nikola – April 14th
- CRSP Work Plans – April 14th
- ABWC – April 15th - RWCD
- APA & IEDA Meetings – April 19th
- APPA EV Webinar – April 27th
- Tour of Wellton-Mohawk, Parker & Davis Dames – May 2nd-3rd
- Drought Interagency Coordinating Group – May 4th
- NWRA Federal Water Issues – May 10th thru 12th
- APPA National Conference – June 11-15 Nashville, TN

Oil & Natural Gas

- The U.S. has recently become the world's top LNG exporter
- Administration Expects 'Significant Increase' In US Oil, Gas By End Of 2022
- Russia Produces Roughly 10% of World Oil
- Forecast Calls for Up to \$150/Barrel
- Western Caucus Roundtable - Ensuring Energy Dominance
 - In 2020, BLM Approved 822 Application Permit to Drill (APD)
 - Average Time of Permitting in 2020 was 142 Days
 - In 2021, It Was 164 APDs and Averaged 182 Days
 - 4,600 Pending APDs
 - \$230M Spent in Permits Over Last 4 Years
 - \$15K/Federal Permit vs. \$1/K on State Land Taking 2 Weeks to Get
 - Alaskan Speaker Stated Billion Barrel Oil Fields are Common in State
 - Alaska has 35T Cubic Feet of Known Natural Gas
 - Company Reinjects 9B Cubic Feet of Natural Gas/Day in One Field
 - Of 9K Leases Not Being Drilled, 2K in Environmental Litigation
 - There are Roughly Twice as Many LNG Import Facilities than Export
 - Russian Pipeline Gas Releases 41% More GHG than US LNG
- WH Sees New Tax Revenue as Means to Cutting the Deficit by \$100B Annually Over the Next Decade and Halving it to \$1.4T for Fiscal 2023
- Part of Savings Would Come by Repealing Fossil Fuel Tax Breaks, Saving \$3.4B in fiscal 2023 and \$43.6B over 10 years
- WH Announced Largest Release of Oil Reserves in U.S. History – 1+BGD
- Administration Would Penalize Oil Companies Sitting Idle on Unused Wells
- Democrats Floating Proposal to Tax Windfall Profits of Oil Companies, estimated to raise \$45B, and Distribute “Energy Rebates” to Americans
- Wall Street's Hesitation to Make Long-Term Investments in Fossil Fuels is Preventing Industry from Ramping Up Production with High Prices
- Q4 2021, EVs accounted for 6% of all light-duty vehicle sales (187,490)
- That marks an 11% increase from Q3
- Sale of ICE Vehicles Decreased 1.3% During the Same Time
- January Sales of EVs were 44% higher than in January 2021.
- House Minority Leader Kevin McCarthy (R-Calif.) Predicted Energy Independence Would Be Among House Republicans' First Courses of Action

- Republicans Wish List Includes Reopening Federal Lands to New Lease Sales, Streamline Permit Approvals for Natural Gas Exports and Reconsidering the Cancellation of the Keystone XL Pipeline
- NHTSA released new fuel economy standards for 2026 - 49 MPG
- Senators Pushed Ethanol with EPA Reagan to Lower Gas Prices

Omnibus Bill

Department of Energy - \$44.9B, up \$2.9B but \$46B Less than President Budget

- Energy Efficiency and Renewable Energy - \$3.2B, \$338M more than FY21
- Office of Science - \$7.5B, up \$450M from FY21
- Nuclear Energy - \$1.65B, an increase of \$147M from FY21.
- \$250M for Advanced Reactor Project and \$150M for the SMR RD&D
- \$7.5M for Nuclear Waste Disposal Activities, Down \$20M from FY21
- \$185M for Office of Cybersecurity, Energy Security & Emergency Response
- \$450M for ARPA-E (energy), no funding for Pres. proposed ARPA-C (climate)
- \$27.5M for Interim Nuclear Waste Storage Activities, Same Level as FY21

EPA - \$9.5B, up 3% from FY21. Environmental Justice Programs Provided \$100M \$88M More Than in FY21 but Half of what the President Requested.

Department of Interior - \$14.1B, a 5% increase from FY21

Wildfires - \$5.85B is provided for Wildland Fire Management, including \$2.45B in cap-adjusted fire suppression funding. Increase of \$211M from the FY21 level

Bureau of Reclamation - \$1.41B

Dept. of Agriculture - ReConnect broadband grant program received \$450M (in addition to the \$2B provided in the recently-passed Infrastructure bill)

Low Income Home Energy Assistance Program - \$3.8B,

Renewables

- Biden Extends Solar Tariff 4 Years, Eases Trump-Era Requirements

- Department of Commerce to Investigate if SE Asia Photovoltaic Solar Cells & Modules are Circumventing U.S. Tariffs
- Renewables Expected to Reach 44% by 2050 (EIA)
- 800-MW Wind Farm Under Development in Southern Idaho
- DOE Released Action Plan for Handling & Recycling Solar Panels
 - Some Studies Estimate that they could make up 10% of all E-Waste
- SPP Supplied 90% Energy Via Renewables Topping Previous Record (87.5%)
- Feds Plans to Auction Off Wind Energy Rights Off NC & SC Coasts
- Wind And Solar Generated A Record 10% Of The World's Power In 2021
- DOE Calls For 2,100 Turbines To Meet 30 GW Goal

Washington DC

- President Biden Released a \$5.8T budget proposal for fiscal year 2023
- Jackson Confirmed to Supreme Court
- For the second Year in a Row, it did not include Sale of the PMA
- Only 44 Legislative Days Left in the Year
- Biden Invokes Defense Production Act To Bolster Domestic Battery Manufacturing For EVs, Energy Storage
- Earmarks Capped at 1% of Overall Discretionary Spending, But Lawmakers Now Able to Request as Many as 15 Earmarks
- GOP Lawmakers Called for "Parity" Between Defense and Other Spending
- 4% Increase for Defense Out of Line With 14% for Domestic Spending
- Chair Raúl Grijalva Called to Codify Tribal Consultation Issues.
- Sen. Joe Manchin (D-W.Va.) Open to Supporting Revised Build Back Better Addressing: Climate Change, Prescription Drug Prices and Deficit Reduction
 - Direct Pay Energy Tax Credits on the Table
 - Credits May Need to be Offset by Corporate Tax Increases
 - Next Best Opportunity for these Tax Credits Would be End of Year
- Omnibus - First in years to Contain Congressionally Directed Spending
- Overall, House Appropriators Included \$4B in Earmarks for 2,700 projects
- Senate Appropriations Committee Included \$6.28 billion in Earmarks
- House Process for Requesting Appropriations Bill Earmarks Announced; Deadlines Begin April 27 (E&W April 29th)

- President Biden Signed Law Requiring Reporting for Federal Cyberattack
- Senate Moves to Make Daylight Saving Time Permanent
- LIHEAP - Might Expand the Program to Include Water Assistance

Wildfires & Other Disasters

- National Forest System to Get \$2.1B for fiscal 2023.
- WH Requested \$2.68B, of which \$321M Would be Devoted to Removing Dead or Dying Trees and Other Hazardous Fuels from National Forests
- Additional \$2.2B -Congressionally Mandated Wildfire Reserve Fund
- Dry Summer with Significant Fire Risk for Southwest Colorado as Snow Accumulation sits Roughly a Week Away from its Peak
- Lawyers Pursuing \$1B Liability Claim Against Berkshire Hathaway in OR
- Forest Service Making Grants Under a New \$1B Wildfire Defense Program
- IJJA -\$3B for Forest Service & \$1.5B DOI to Reduce the Risk of Wildfires
- PG&E Agreed Monday to Pay \$55M Over Two Massive Wildfires in NoCal
- PG&E Installing Enhanced Powerline Safety Technology to Disconnect Powerlines when Threatened by Wildfires