



UTILITIES ADVISORY COMMISSION MEETING MINUTES OF SEPTEMBER 6, 2023 REGULAR MEETING

CALL TO ORDER

Chair Segal called the meeting of the Utilities Advisory Commission (UAC) to order at 6:02 p.m.

Present: Chair Segal, Vice Chair Scharff, Commissioners Croft, Forssell (arrived at 6:04 p.m.), Mauter, Metz and Phillips

Absent:

AGENDA CHANGES, ADDITIONS AND DELETIONS

None

PUBLIC COMMENT

None

APPROVAL OF MINUTES

ITEM 1: ACTION: Approval of UAC Draft Minutes from July 2023

Chair Segal invited comments on the July 5, 2023 UAC draft meeting minutes.

ACTION: Commissioner Phillips moved to approve the draft minutes of the July 5, 2023 meeting as submitted.

Commissioner Croft seconded the motion.

Motion carried 5-0 with Vice Chair Scharff, Commissioners Croft, Mauter, Metz and Phillips voting yes.

Chair Segal abstained.

Commissioner Forssell absent.

UTILITIES DIRECTOR REPORT

Dean Batchelor, Utilities Director, delivered the Director's Report.

EV Discount Campaign: CPAU offered its second Electric Vehicle (EV) Discount Campaign during July and August in partnership with Cool the Earth. This program offered discounts of \$3,000 - \$7,000 on select EV models from Audi, BMW, Ford and Toyota. Palo Alto residents purchased four EVs during the first EV Discount Campaign offered in March.

Qmerit: CPAU partnered with Qmerit on a program for Palo Alto homeowners to receive free online estimates from local, vetted contractors for EV charger installations, permitting and inspection costs.

SunShares: For the eighth consecutive year, the City of Palo Alto is participating in Bay Area SunShares, a solar and battery storage group-buy program administered by Building Council for Climate Change (BC3). The SunShares program offers discounted prices from two vetted installers, Solar Union and Solar Technologies. Program registration opens September 1 and closes November 15. Installation contracts must be signed by December 15.

Outage Management System Update: CPAU met the goal of having the new Outage Management System (OMS) before wintertime. As of Tuesday, August 29, this new tool is in place. Last Monday, there was an outage of about 1300 customers in an area with a combination of overhead and underground. An overhead jumper wire burnt. An underground switch had a hole on its side and investigation is ongoing as to the cause. The cables tested properly. The outage started at about 1 p.m. and ended by 7 p.m. with the exception of about 24 customers who were out until about 1:30 a.m. It seemed to Mr. Batchelor that the outage map was more precise and easier to see as customers were repowered. CPAU received less calls from customers during this outage than typical, although it was a holiday. Staff provided updates approximately every hour. Staff expected OMS to have the capability to send outage updates to customers via text by October 1.

Recent Events:

- **August 16:** Corporate EV Expo held at Stanford Hospital's main campus to educate staff on electric transportation. Approximately 350 attendees engaged with Utilities staff. EVs from Ford, Hyundai, Kia, Nissan, Tesla and Volkswagen were on display. The event was a huge success.

Upcoming Programs and Events: Details and registration at cityofpaloalto.org/workshops.

- **September 6:** E-bike 101 webinar on technology, e-Bike categories and best safety practices.
- **E-bike Discount Campaign:** Program will run from September 6 to end of the month offering a savings of \$400/e-bike (\$99 direct discount, \$37 bike accessories, \$165 bike assembly fee waived and \$99 complimentary tune-up after 3 months of ownership).
- **September 10:** Several representatives from Utilities Program Services and Communications will have a table at the annual Midtown Residents Association Ice Cream Social.
- **September 14:** CPAU is partnering with the Bay Area Water Supply and Conservation Agency (BAWSCA) to host an Integrated Pest Management Webinar about safely eliminating household pests without the use of toxic pesticides.

Chair Segal drove by Embarcadero Road twice during the outage. The first time was chaotic. The second time, there was an accident and stop signs. She wondered what the process was to help drivers when an outage affected an intersection. Mr. Batchelor replied that if an outage involved a major thoroughfare, staff would contact PAPD and Public Works so they could put portable stop signs at the intersection.

In response to Commissioner Forssell querying where the e-bike discount was available, Mr. Batchelor stated he would respond to her when he had the answer. <https://rideanddriveclean.org/ebike-discount-campaign-fall-2023/>

Council Liaison Ed Lauing commented on the new OMS. He called in to report the outage about 30 minutes after it happened. The system thanked him, said the outage had already been reported and asked him if he wanted a call back. He said yes and received a call back as soon as it was fixed. Mr. Batchelor remarked that was one of the advantages with the new OMS.

Mr. Batchelor hoped to have some AMI meters by the end of the year. The goal was to test 500 AMI meters but staff expected to receive about 250 meters because of a supply chain issue and high demand. Meters were bench tested. Meters will be deployed once they arrive. Commercial meters have a longer timeline. In the event of an outage, Dispatch can ping the meters to determine if they are live or not responsive. Transformers will have an energy recovery control to ping to determine if it had power.

Mr. Batchelor estimated 100% of Palo Alto residential customers would have AMI by the end of fourth quarter 2024. There was no estimated timeline for commercial AMI. Mr. Batchelor's preference was to have all residential meters installed before launching on the commercial accounts.

NEW BUSINESS

ITEM 2: DISCUSSION: Discussion and Presentation - Overview of Drinking Water Quality

Utilities Director Dean Batchelor mentioned this item was on the 12-month calendar for some time. He asked Assistant Director Matt Zucca to deliver a presentation.

Water, Gas, Wastewater Engineering and Operations Assistant Director Matt Zucca provided an overview of Palo Alto's drinking water quality and regulations. The Hetch Hetchy Watershed in Yosemite Valley conveys water to Palo Alto via gravity with no pumping. The system was built about 100 years ago. SFPUC uses the pipeline system to generate electricity. There is no centralized treatment plant for Hetch Hetchy water. Water is not filtered. The water treatment process includes UV light, monochloramine, pH control and fluoridation. The Tesla Treatment Facility does UV treatment.

Palo Alto may receive a blend of filtered and unfiltered water from different sources. The Hetch Hetchy Reservoir is a high-elevation, pristine, granite watershed containing snowmelt runoff that provides 85% of our water. Since 1993, the Surface Water Treatment Rule allows for filtration avoidance waivers. SFPUC was one of five agencies in the U.S. to meet water quality standards to qualify for a filtration avoidance waiver to serve water as potable with disinfection but without filtration. Standards to qualify for this waiver include turbidity less than 5 NTU and disinfection to remove Giardia and viruses. SFPUC will treat water at the Sunol Valley Water Treatment Plant in the rare event it did not meet one of those standards. Around 15% of the total volume SFPUC delivers in its regional system is treated water from San Andreas, Crystal Springs or other watersheds.

Federal and state regulations require CPAU to annually produce and issue a Consumer Confidence Report to all its customers. This report contains an explanation of our water sources and water quality, provides data on how our water compared to MCLs (maximum contaminant levels) and whether there were any exceedances, a list of all contaminants and their typical sources.

The most common public concerns or complaints to Operations relate to taste, odor and dirty/discolored water. Mr. Zucca stated his house has old, rusted galvanized pipes. If water sits in the pipes while he is away for a weekend, water comes out brown when he turns on the faucet. Flushing mains might stir up sediment and material within the pipe that then goes into a home. Repairing a main break generates high-flow scenarios that create turbidity. Milky/cloudy water usually indicated the presence of air bubbles in the system. Bubbles float to the top and go away after letting it sit for a minute. When SFPUC operates their system, air entrainment can occur. Entrained air may look strange but there is no issue with the water. White particles in water can indicate a deterioration of the dip tube in the hot water heater. Black particles in water floating to the surface could be due to monochloramine degrading elastomers in faucet O-rings. Black flecks in a toilet can be from degradation of elastomers in the toilet flap. It is an unfiltered system, so sediment can cause particles in water.

The formal mechanism for customers to register a complaint is to call the Water Operations Team, who then reports it to the State Board. Calls regarding turbidity or suspended solids are infrequent. Taste, odor and color were the most common reasons for calls. Treated water from Crystal Springs and San Andreas Reservoir tastes different from Hetch Hetchy water, although it is also snowmelt runoff and does not taste bad. Taste and odor complaints occur for about a week when summer ends and the air temperature in the Sierras is suddenly much colder because the reservoir surface water cools and mixes from being thermally unstratified. SFPUC notifies CPAU of changes. It takes about three days for water to come down the water system. Water is not pathogenic but it is not sterile. Heterotrophic bacteria build biofilms that can accumulate in the water. SFPUC provides water to 26 BAWSCA agencies.

Water from the nearest hydrant may be tested if there is a known concern but staff avoided testing in the home because homeowners have impact over their portion of the water delivery system. The only exception is the Lead and Copper Rule regulations that required testing in the morning to capture the first flush of water after pipes were stagnant.

Palo Alto receives water from SFPUC via the Palo Alto Pipeline and Bay Division Pipeline #3. There are five turnouts. The system distributes water into nine pressure zones. Zones are at different pressures based upon their elevation. For CPAU to employ additional treatment measures would involve treating water at the five turnout locations or centralized into one or fewer locations for treatment. The California Turnout was in the middle of the street below ground. Additional treatment would require buying land, building infrastructure and staffing. Staff did not perform a detailed cost analysis but staff used U.S. EPA's model to estimate an average of \$9 million per location for a total of about \$50 million for a simple filtration system to solve for sediment coming into our system. Even with treatment performed at our turnouts, multiple sources in the system could contribute biofilms and pipe materials could contribute to color and suspended solids. For the model, Mr. Zucca selected granular activated carbon (GAC) because it could remove particles and absorb some organic compounds. Organics react with free chlorine and monochloramine to generate disinfection byproducts. Removal of organics resulted in fewer disinfection byproducts. Mr. Zucca was more concerned about replacing pipe nearing the end of its useful life than spending \$50 million for water treatment not required by regulations.

Commissioner Phillips suggested treating water upstream from Palo Alto where land costs less, not five entry points but one much larger stream and presumably other water districts could join us. Mr. Zucca commented that BAWSCA could influence SFPUC if there was the collective will to do so but SFPUC could object because there was no regulatory driver. Mr. Zucca thought the primary interest was in water supply augmentation solutions and alternative water supply treatment. Some of those

evaluations were within the One Water Plan. There was a lot of conversation on treatment of purified water (previously called reclaimed water) but regulations were changing fast.

Palo Alto has eight active wells, one was permitted for continuous use and the rest were on emergency standby. In an emergency such as an earthquake, groundwater can generate 10 MGD. The One Water Plan will look at the possibility of incorporating groundwater along with indirect potable reuse (IPR) and direct potable reuse (DPR). The one active well is exercised to keep it active but the pump froze. When the well is operated to test it, the water goes to waste. The water quality issues with our wells are iron and manganese, secondary MCL and TDS. Most of the wells, especially the El Camino Park Well, can blend with Hetch Hetchy water.

Pumping at night when there is lower demand helped maintain the water quality in reservoirs. Commissioner Mauter wanted to talk more about that topic related to electricity with Mr. Zucca.

City-provided tap water met all water quality regulations but residents may prefer point of use (POU) or point of entry (POE) treatment. A POE home system treats water end uses, it could be a water softener but it may not have filtration. A POU system is at the end use, which could be a filter below your sink or for your refrigerator water. POE and POU treatment devices that make claims about specific performance and removal have to be State certified. For more information on POE and POU devices, go to waterboards.ca.gov/drinking_water/certlic/device/watertreatmentdevices.shtml.

Unregulated Contaminant Monitoring Rule (UCMR 5) under the Safe Drinking Water Act is the EPA process to name unregulated contaminants. EPA has to collect data on contaminants suspected to be present in drinking water but do not have health-based standards and decide whether to regulate them.

The State Water Board required water agencies at higher risk to sample for PFAS (“forever chemicals”). SFPUC was not a high-risk agency, so sampling was not required. SFPUC sampled on three occasions and all results were below the detection limit. Scheduled completion of UCMR 5 reporting is the end of 2026. EPA has MCLs for six PFAS compounds. PFAS chemical limits were in parts per trillion (ppt) levels.

In 2018, all pipes on the City side of the meter were certified as not being made of lead. Lead and Copper Rule Revisions (LCRR) require verification of no lead or copper on the customer side of the meter. Staff estimated to complete this task over the next year with 50 or 60 done daily. Customers would be notified if lead service lines were found. It was anticipated that additional staff is needed to fulfill the LCRR requirement to sample 20% of elementary schools and childcare facilities every year for five years and then on request. Mr. Zucca remarked that schools had previous testing done. This was an unfunded mandate and Mr. Zucca did not have the resources. Staff needs to spend time at each school to find out how the school was built and its plumbing to determine the appropriating sampling technique to obtain representative data. Copper is a regulated metal but Palo Alto never had a water quality issue with copper. Copper poses a risk to aquatic organisms when discharge from copper pipes goes out to the Bay. SFPUC manages pH.

Mr. Batchelor commented that rules were not as stringent when schools were tested in 2018 because the purveyor only asked for the City to test our side of the meter. It was up to the individual schools if they wanted to test their side of the meter and schools did not share their test results with the City. Mr. Zucca stated that a specialist was compiling a school list. The first compliance deadline was to scratch 10,000 services lines to make sure they do not have lead and he thought school testing was the next phase of work if CPAU had the resources.

Blending solutions treat for iron and manganese. Total dissolved solids (TDS) were a secondary MCL because it affected taste, odor and usability. TDS caused water hardness, minerality and stained wood from sprinkler systems. Treating for TDS typically required reverse osmosis or blending with higher quality water such as Hetch Hetchy water to dilute solids. Reverse osmosis was a high-energy use system and had a waste stream.

Primary MCLs have an enforceable limit, for example fines from the State Board for a bacteriological parameter such as E coli. TDS and other secondary MCLs have standards to meet minimum aesthetic quality but are not a public health concern.

Commissioner Phillips asked if there was a way to dedicate groundwater to non-potable uses, such as industrial commercial use, carwashes or golf course watering. Mr. Zucca responded that there was nothing feasible since there was not a separate system to put the groundwater in, so it would have to be hyperlocal uses. Wells at parks could be plumbed separately for local irrigation but not on a large scale. CPAU and SFPUC were evaluating IPR and DPR. IPR injects purified water into the groundwater upgradient and pulls it out from a groundwater well downgradient as a way of augmenting groundwater supplies. SFPUC was looking at pumping purified water up and over the hill into the San Andreas and Crystal Springs Reservoirs and pulling it out at the Harry Tracy Water Treatment Plant to augment local supply. The State Board is seeking public comment on DPR regulations. DPR puts purified water directly into the system or immediately upstream of a treatment system. Australia has a long history of DPR. Valley Water's purification plant would be our most likely source of DPR. Water quality concerns will be substantial on IPR or DPR as a water supply.

Commissioner Mauter inquired on the status of the One Water Report from Carollo and action based on that report. Mr. Zucca replied that the Resource Management Division (RMD) and Karla Dailey led that project, not his group. Mr. Zucca's understanding was the report would be available the first half of next year but staff could provide more specificity on the schedule.

Commissioner Forssell saw in the news that microplastics were found in the Sierra Watershed, in Lake Tahoe and snowmelt. She asked about Hetch Hetchy, if SFPUC was testing for microplastics and the method for getting rid of them. Mr. Zucca does not know if anybody sampled for microplastics. He had not heard anything in the industry focusing on microplastics. The UCMR 5 did not target microplastics.

The industry relied on EPA and the State Board to identify public health concerns. An agency like Office of Environmental Health Hazard Assessment sets health goals and the industry determines how to achieve those goals, what is cost effective and MCLs are set. The industry does not collect data for the sake of data. To manage available public funds, the focus is on complying with regulations that the EPA and State Board have set to protect public health.

Fires have become more prevalent in the Sierra, Commissioner Croft wondered if testing captured byproducts of fires or firefighting in the runoff. Mr. Zucca replied that not everything was captured. Fires in Yosemite Valley caused turbidity in the water. In situations of additional sediment into the watershed, there are taste and odor changes but it was not a public health concern. SFPUC will monitor and adjust their operations.

ACTION: None

ITEM 3: DISCUSSION: Overview of Palo Alto Fiber and Fiber Backbone Activities and Discussion of the Fiber Expansion Plan

Public Comment: Herb Borock thought that copies of Magellan’s designs for fiber backbone extension and the fiber-to-the-premises network should be publicly available, including the equipment for input and output, passive optical network, number of new customers in fibers out and the locations of those nodes and segments as well as how many people were connected to each contact point.

Utilities Strategic Business Manager Dave Yuan presented project updates on fiber backbone expansion, Phase 1 of fiber-to-the-premises, and grid modernization for electrification. It had taken longer than anticipated to begin construction.

The current fiber backbone is 25 years old. There are congested segments where we are unable to add new dark fiber customers because there are no fiber strands available. New backbone is a City investment for at least the next 50 years to serve Utilities, Public Works, Public Safety and other City departments and allow for future services. It will provide additional security and reliability because it will be separate from the fiber-to-the-premises network and dark fiber network that third-party contractors may access.

The fiber-to-the-premises project would provide City-owned high-speed internet service. The City received over 740 deposits for City internet broadband. Based on survey results, staff projected up to a 40% take rate, whereas a take rate of about 25% to 30% was enough to make this business sustainable.

Grid modernization is a multiphase project estimated to take seven years. The first focus is on aerial construction areas because they pass the most homes and are faster to upgrade than underground areas. The pilot neighborhood for electrification encompasses Embarcadero, Louis Road, Oregon Avenue and Middlefield. This is one of the last areas to convert distribution lines from 4 kV to 12 kV. The original pilot consisted of about 80 poles in that area but will now expand to 400 poles.

CEQA delayed the fiber project but now staff believed there was an opportunity to align construction of the first phase of fiber-to-the-premises with grid modernization to minimize community disruption. Staff is in the process of contacting construction firms to determine the cost savings of hiring one company to upgrade power and telecom. Rincon has conducted numerous CEQA studies for the City of Palo Alto and throughout Santa Clara County. The City anticipated either a negative declaration or a mitigated negative declaration for this project. The initial study will assess aerial and underground construction, fiber hut, underground vaults, aboveground cabinets and customer connection. The CEQA timeline will take about 30 weeks, including one month of public review and comments.

Under a 1918 agreement, the City jointly own 5400 of our 6000 poles with AT&T. With the grid modernization and fiber expansion projects, the City will touch almost every pole. This will increase the volume of pole replacements from about 100 annually to about 600 over the next three to four years. The fiber expansion project will require relocation of some third-party equipment on the pole to accommodate the City’s fiber attachments, so the City will work with third parties to have them move their equipment up or down the pole. The City is waiting for AT&T’s response to a letter the City sent to coordinate these projects and the needed resources.

Staff explored the Northern California Joint Pole Association (NCJPA), a nonprofit organization established over a hundred years ago with about 50 members that share the cost of utility poles. It is a

consortium of private telecommunication, cable TV, phone and wireless companies, including AT&T, Comcast, Crown Castle, Verizon, PG&E as well as municipal agencies such as Alameda, Roseville, Gridley and Lodi. Six of the 16 members of the Northern California Power Agency (NCPA) are members of the NCJPA. The City's main objective of joining the NCJPA was to streamline the pole intent and billing processes as well as recover the fair costs of replacing poles from AT&T. Based on staff's preliminary review of the 200-page NCJPA Operations Handbook, the City would not achieve either objective by joining the NCJPA. It did not meet our needs and would add more complications. The City might lose control of the poles if we were to join NCJPA, which the City did not want to risk. Per our agreement, AT&T must respond within 10 days but NCJPA had a 45-day window to respond to a pole intent request. NCJPA used a shared cost or average cost across all members. The City wanted to achieve a full recovery of the actual costs. Instead of joining the NCJPA, the City will try to amend its agreement with AT&T.

All the make-ready engineering was done for fiber and 6000 poles surveyed. For grid modernization, a new pole assessment is needed to add power. The City engaged a consultant who can do 1400 poles within six months.

Chair Segal inquired if the inspection determined the number of poles that had third parties encroaching our space. Mr. Yuan replied that the Magellan survey included pictures of all poles. In the first phase, probably 300 need relocating but Mr. Yuan guessed maybe at least 20 to 50 were encroaching.

The Colorado Substation will be the City's first fiber hut. It will be a prefabricated building. There were concerns about the floodplain, so all Public Works guidelines will be followed. City Hall and Equinix are strategically located to have fiber huts. The City is in discussions with Equinix to see what space is available to lease and how much cabinet or tower space we can use but the biggest challenge is how to get conduit into their building since they are congested with other telecoms.

Four new positions were approved in the FY 2024 budget but were not hired yet. CIO Darren Numoto is serving as Interim Assistant Director because he has telecom experience. The other three positions approved are a construction or outside plant manager, a sales and marketing manager, and a senior network architect or engineer.

Mr. Yuan stated that CEQA takes six months and will finish in March. The construction bid will probably take three months and evaluation another three months. Construction could begin in nine months to a year. Staff was not aware this was a CEQA issue until they found out from attorneys, so it put a delay in the timeframe. The City had to go back to Magellan to find another consultant to help us file the proper paperwork for the CEQA. Mr. Batchelor commented that there was no CEQA issue with grid modernization because we were replacing in kind, replacing the secondary to a larger sized wire and maybe a larger transformer.

Commissioner Croft asked if there was a possibility this could accelerate completion of grid modernization. Mr. Yuan replied that the current proposal accelerated the first part, 6000 homes versus 500 homes. There is a possibility of speeding up grid modernization because the consultant will be doing all the make-ready, so potentially they could speed up the pole make-readies for other aerial areas. Mr. Batchelor added that the City had difficulty securing transformers. Transformers were ordered but they are out about two years due to a supply issue. Switches might be delayed. The City needed almost double the amount of transformers than we currently have in the system. Some transformers ordered last year have been received. A shipment of 125 or 150 transformers will arrive by the end of the year.

Chair Segal noted that construction days were very short and she suggested expanding it for this project given the time constraints. Mr. Yuan replied that when obtaining permits, an exemption from Planning to expand the construction hours could be requested. Mr. Batchelor thought it may not be possible on the major thoroughfares but it was a good idea for staff to ask Planning for an exemption to stay out longer on other streets. Mr. Yuan remarked that staff was trying to have one company to closely coordinate both projects. They could do power first and then the telecom company come right afterwards and hang up all the wires and messengers to complete the task within days or weeks.

Chair Segal mentioned she received an email from Comcast announcing a new 10G plan for \$60/month. AT&T does not serve her area. Chair Segal expressed her concern that the City would lose its customer base as time goes on.

In the beginning, the focus for electric grid modernization is overhead. For fiber, the City wanted to do underground and overhead if it was in the same neighborhood, which may necessitate hiring a separate underground construction firm to do the work. Electric infrastructure does not need to be upgraded in the underground areas. The secondary wire can be pulled out of the conduits for the electric project but they have to trench or bore the streets for fiber.

ACTION: None

The UAC took a break at 8:07 p.m. and resumed at 8:23 p.m.

Utilities Management Analyst Tabatha Boatwright responded to Commissioner Mauter's previously asked question regarding the One Water Plan. There have been delays with the vendor. Staff was working closely with the vendor to modify those delays. A return response was anticipated in early 2024; however, this fall there will be multiple stakeholder engagement meetings that will be posted on the website and announced.

ITEM 4: DISCUSSION: Overview of Sustainability and Climate Action Plan (S/CAP) Activities To-Date and Discussion of Reliability and Resiliency Strategic Plan Policy Guidelines

Assistant Director Resource Management Jonathan Abendschein requested UAC's feedback on the following questions: Is staff's work plan in line with Council policy guidelines? Are the right topics included? Is there a need for clarifications, additions or deletions? Are there any technologies, processes or policies that the UAC expected to see included in the plan? Are the timelines appropriate?

Commissioner Phillips was curious about how electrification would affect the 20% who are still on gas if the City's goal was 80 x 30, the impact on gas rates and any potential interruption issues. Mr. Abendschein explained it was not the focus of the Reliability and Resiliency Strategic Plan. Mr. Abendschein offered to forward to Commissioner Phillips the preliminary analysis done a few years back that less concentrated areas of the system realized more savings, which allowed CPAU to maintain rates at a reasonable level but would not be the case if a broadly distributed system were maintained for very small amounts of gas. One of S/CAP's work items is for a gas infrastructure and financial transition plan but it needed staffing. The work item received funding in the FY 2024 budget. Mr. Abendschein was requested to send that preliminary analysis to all UAC commissioners.

Commissioner Metz suggested some broad guidelines and offered to share more detailed feedback in writing. First, he opined it was essential that Resilience address items such as an outage or a car driving

into a pole as well as emergencies. The horrendous situation in Maui shows how imperative it is for the electric utility to act in emergencies.

Commissioner Metz's second guideline was the importance of CPAU coordinating with the Office of Emergency Services (OES) on planned responses to anticipated scenarios and definition of events considered a design emergency. OES has said that people need to anticipate one or two weeks with no electricity or water, which was very different from expecting the majority of customers to be repowered within 24 to 72 hours. Improve our process for preparation and assessment of local energy resources. Topics in the July meeting included demand management and distributed energy resources. Past analyses resulted in a negative conclusion on those types of technologies but Commissioner Metz thought the analyses did not impute a value to their resilience and having a fallback in an emergency. Centralized solar was overvalued; it provides RECs but does not provide energy when needed, particularly in an emergency.

Commissioner Metz commented on neighborhood and community emergency center resilience. OES wanted to keep people out of emergency centers, so there has to be a way for people to survive an emergency in their homes.

Commissioner Metz addressed the question how the UAC wanted to be informed. He believed the UAC should have a subcommittee devoted to S/CAP and Reliability and Resilience.

S/CAP had three working group teams last year and commissioners joined those team meetings. Instead of working group teams meeting individually this year, S/CAP had meetings of the working group as a whole and invited the commissioners. Commissioner Metz attended some of those meetings. Brad Eggleston is the Executive Team Lead on S/CAP and the liaison with the S/CAP Committee. Commissioner Mauter suggested monthly reports to the UAC but Mr. Abendschein deferred that to the S/CAP Committee. Mr. Abendschein stated that two-way communication by having commissioners involved with the S/CAP Committee was helpful in the past and he would forward Commissioner Mauter's comments to the S/CAP Committee.

For Task 1, S/CAP was not planning to address Utility workforce issues but the intent was to summarize its impacts on reliability, such as having a workforce that can respond to emergencies and restore service quickly, investing in our infrastructure and reporting out on outages when they occur. Regarding improving the Utility OMS and communication protocol, efforts to improve Utility's OMS will be summarized. Vice Chair Scharff pointed out that it was confusing when the work plan uses terms such as "addressing Utility workforce issues" and "improving the Utility Outage Management System" as opposed to "summarizing." Mr. Abendschein replied that he could be make modifications to clarify the work plan and report, then send it to the UAC as an informational item and send it to Council.

Vice Chair Scharff asked if the new technology referred to expecting more distributed energy such as rooftop solar or electric vehicles putting power back into the house. Mr. Abendschein answered yes to all the above. Distributed energy resources included solar, battery storage, battery to grid and microgrids alongside load management, control technologies, advanced grid automation and protection. Task 2 was a work item. A study was in progress on distributed energy resources and integrating them into the grid, identifying grid benefits that the City could leverage by providing the right programs or incentives for customers to use these technologies in a way that benefits the distribution system. Understanding how technologies for demand response might be used for the distribution system is the focus of Task 2. Task 2 was likely to have some findings or recommendations.

The extent to which those technologies can provide reliability to recover from everyday outage events and resiliency by having a way to provide yourself power, services or resources during a major emergency are focused on in Task 3. Many technologies have some resiliency benefit and S/CAP wanted to understand what role the City could have, such as community center resiliency, programs for residents to install solar and storage in their homes, neighborhood microgrids, valuing resiliency in procurement and electric vehicle to home. S/CAP wanted to make a list of potential ways the City could engage with the community and help the community implement technologies to achieve greater resiliency and be clear about the costs and staffing needs to implement any of those programs. Task 3 will be a report including pros, cons, tradeoffs and resource needs for various options in order for the UAC and Council to take action via policy direction and resources for implementation. Whether S/CAP would provide their recommendations in Task 3 was unknown.

Task 4 will be a report on S/CAP's actions and request for feedback whether to make any adjustments.

Commissioner Forssell opined the timeline looked fine and the topics seemed reasonable. When the S/CAP committee wrote reports, she would like to have it as an agenda item to allow for UAC discussion.

The percent of electricity used by commercial customers versus residential was about 80% commercial and 20% residential but that will shift when adding in big commercial projects. Multifamily was 5%. Large commercial microgrids would provide economic value and resiliency benefits. Chair Segal expressed the importance of considering if electrification or grid improvements would become a barrier to businesses in Palo Alto.

Bonds will provide funding. The City has been discussing how and when to do those bonds. Mr. Abendschein did not have further information but staff could provide an update in the future.

Mr. Abendschein stated that work is in progress on a KPI dashboard, for example the number of homes without a gas connection and the percent of new vehicle purchases that were electric. If Commissioners were looking for specific information, Mr. Abendschein could share data or dashboards if available.

ACTION: None

COMMISSIONER COMMENTS and REPORTS from MEETINGS/EVENTS

Commissioner Metz reported that the S/CAP meeting mainly focused on marketing communication of programs and a marketing consultant provided a presentation. The heat pump water heater program was the first priority. He noted that the more technical people on the S/CAP team had expertise in end-use technology within the home. He did not think any S/CAP team members had deep expertise in utilities. There was no discussion on what to do about the grid.

An active community member who was interested in being an early AMI adopter contacted Commissioner Forssell and wondered if customers could be put on a list to be included in the pilot. Utilities Director Dean Batchelor replied that customers could email Mr. Batchelor directly stating they would like to have an AMI meter. Of note, you will not see AMI data until sometime next year even if you have an AMI meter installed before then. Utilities Strategic Business Manager Dave Yuan thought it might be in February because the portal takes about five months of development after signing off the functional specs but he will keep UAC updated on the progress.

Mr. Yuan added his response to the earlier discussion about funding. The City is waiting for DOE's response to their request for \$115 million for the electrification grid. The City has to spend those funds before pursuing bond financing.

Commissioner Phillips noted there was an item in the August meeting agenda for a presentation on natural gas hedging and he wanted to know what happened to that item. Mr. Batchelor explained that staff received feedback from Finance and needed to make changes before taking it to Council. It will come back to the UAC as an informational item because Finance approved it and it was moving on to Council. The UAC cancelled a meeting and was unable to address this item due to timing. Staff needs Council's approval for hedging. Pricing would not be available for the winter months if staff waited too long, so they bypassed the UAC.

FUTURE TOPICS FOR UPCOMING MEETING

Informational item on natural gas hedging.

NEXT SCHEDULED MEETING: October 11, 2023

ADJOURNMENT

Commissioner Phillips moved to adjourn.

Commissioner Mauter seconded the motion.

Motion carried 7-0 with Vice Chair Scharff, Vice Chair Scharff, Commissioners Croft, Forssell, Mauter, Metz and Phillips voting yes.

Meeting adjourned at 9:26 p.m.