



DRAFT

UTILITIES ADVISORY COMMISSION MEETING MINUTES OF MARCH 5, 2020 SPECIAL MEETING

CALL TO ORDER

Chair Danaher called the meeting of the Utilities Advisory Commission (UAC) to order at 7:00 p.m.

Present: Chair Danaher, Vice Chair Forssell, Commissioners Jackson, Scharff, Segal, and Smith
Absent: Commissioner Johnston

ORAL COMMUNICATIONS

David Coale remarked that the new MyCPAU portal looks great and should include on-bill financing because it will facilitate building electrification. Two solar companies have stated they will not install facilities in Palo Alto because of the permitting process. The challenges of the permitting process will inhibit electrification.

APPROVAL OF THE MINUTES

Commissioner Segal moved to approve the minutes of the February 5, 2020 meeting as presented. Commissioner Jackson seconded the motion. The motion carried 6-0 with Chair Danaher, Vice Chair Forssell, and Commissioners Jackson, Scharff, Segal, and Smith voting yes and Commissioner Johnston absent.

AGENDA REVIEW AND REVISIONS

Dean Batchelor, Utilities Director, advised that Item Number 3 regarding wastewater collection rates has been continued.

REPORTS FROM COMMISSIONER MEETINGS/EVENTS

None.

UTILITIES DIRECTOR'S REPORT

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

Coronavirus Update – The City has been tracking the evolution of the emerging infectious disease known as Coronavirus (technical name COVID-19). There are currently no cases in Palo Alto. The Office of Emergency Services (OES) is participating in the Santa Clara County briefings as well as monitoring advisories issued by the U.S. Centers for Disease Control and Prevention. OES has also been in contact with Stanford Health Care and other hospitals and clinics to coordinate preparation and contingency planning. Practicing basic hygiene and self-care are important to help prevent the spread of respiratory illnesses. The City will provide updates on the situation at cityofpaloalto.org/coronavirus.

2020 Sustainability and Climate Action Plan Update – This year the City updates its Sustainability and Climate Action Plan, also known as the S/CAP. The process will kick off with a community meeting on Tuesday, March 31 from 5:30 to 7:00 pm at the Mitchell Park Community Center. At that meeting the City will seek public input on the 2020 S/CAP Priorities, Goals, and Key Actions. An informational report on the update process was provided to City Council on February 10 and is included as an informational item in the UAC packet

tonight. Utilities staff are heavily involved in the Buildings, Electric Vehicle, and Water elements of the S/CAP. We encourage the UAC to attend the March 31 kickoff meeting and will involve the UAC in various policy discussions that directly relate to the City's S/CAP goals. If you are unable to join the community workshop, but wish to provide input, you may send comments to sustainability@cityofpaloalto.org or directly to me (Director Batchelor). We welcome your thoughts on the draft Goals and Key Actions, as well as recommendations for other actions we should consider.

California Rainfall Levels are Low - As of the end of February, precipitation levels in central California are only 43% of average for this point in the water year. As a result, hydroelectric generation levels for calendar year 2020 are projected to be 17% below long-term average levels, which translates to a supply cost impact of about \$3.5 million. The Hydro Stabilization Reserve (HSR) currently has funds that can be used to help mitigate the costs of dry hydrologic conditions to the Electric portfolio in 2020. Based on reserve forecasts, the City is unlikely to be in a position of having to implement a Hydro Rate Adjuster for fiscal year 2021. As for water supply planning, 100% of Palo Alto's potable water supply is from the Hetch Hetchy Regional Water System. As of the end of February, reservoir storage in that system was 85% of maximum storage, which is above normal for this time of the year. While we do not expect there will be any immediate water supply impacts to Palo Alto, we will continue to closely monitor water supplies as precipitation and snowpack are below long-term average levels.

Special Nissan Leaf Rebates for Palo Alto Utilities Customers – The American Public Power Association (APPA) is partnering with Nissan to offer public power utility customers special rebates on Nissan Leaf electric vehicles (EV). For a limited time only, through March 31, 2020, public power utility customers and utility employees are eligible for rebates on the 2019 Nissan Leaf Standard and 2019 Nissan Leaf ePlus. Visit our website at cityofpaloalto.org/EV to find more information on this special offer.

Earth Day and the Great Race for Saving Water - The City of Palo Alto's Earth Day Festival and Great Race for Saving Water 5K, 10K, and Kids Dash fun run and walk is on Saturday, April 25. This year we are celebrating the 50th anniversary of the first Earth Day. After the races, join us for a free festival with live music, food trucks, yoga, outdoor games, electric vehicle ride and drive, zoo animals, bike expo with e-bike test rides, safety lessons, blender bike, tune-ups and repairs, plus raffle drawings, community booths, environmental and public safety demos. Volunteer and financial sponsorship opportunities are available. Please visit cityofpaloalto.org/EarthDay for details and registration.

Batchelor indicated a resident has complained about temporary passwords for the MyCPAU site being provided via email, which is not secure. Staff decided to utilize email because the temporary passwords expire after two weeks. In response to the resident's comments, Staff has corrected issues with the customer service email address and links directed to the old system. The goal is to launch MyCPAU to all customers by the end of March.

COMMISSIONER COMMENTS

In reply to Commissioner Jackson's query regarding the appropriate time for the UAC to engage in the S/CAP update, Dean Batchelor, Utilities Director, encouraged Commissioners to attend the March 31 meeting. A further discussion with the UAC can be scheduled after March 31.

In response to Commissioner Scharff's question about official advisories, community outreach, and the coronavirus, Batchelor advised that staff has discussed locations and limiting in-person attendance at all City meetings to 100-125 people. A limit on participants may not be necessary for outdoor events.

UNFINISHED BUSINESS

None.

NEW BUSINESS

ITEM 1: DISCUSSION: Discussion of Resilience Workshops: Follow Up and Next Steps.

Debra Lloyd, Acting Assistant Director of Utilities Engineering, reported the feedback from the second resilience workshop in November 2019 indicated the vision and goals are on track; staff should emphasize or prioritize projects that address high-probability and high-consequence events; and the community's general agreement with projects listed in the Capital Improvement Program (CIP) for the next five years, projects underway, or projects being considered. Staff is working on wildfire mitigation measures, smart grid implementation, electric and pipeline replacement and hardening, water storage and reuse enhancements, and prioritization of outages and restorations.

Vice Chair Forssell requested staff update the UAC about prioritization of outages and restorations and inquired about a prioritization plan for distributing stored water. Lloyd advised that there is not a prioritization plan. During a shortage, the concern is about the amount allocated more than who receives water. Jonathan Abendschein, Assistant Director of Resource Management, added that City reservoirs contain about 8 hours of water supply depending on usage for firefighting and demand. Groundwater wells can handle a significant amount of load for an indefinite period of time. In response to Vice Chair Forssell's question regarding possible pilot programs for facilities with a solar panel and battery for community access to power and for connecting EV owners with homebound residents, Lloyd related that Goal 1, establish a resource for individuals requiring home help and provide mobile services, captures those types of programs.

In reply to Commissioner Scharff's inquiry regarding the City paying the Santa Clara Valley Water District for groundwater, Abendschein replied that the City pays for groundwater pumped from the wells. The City can activate one well at any time and the remaining five wells in a short timeframe but only for emergencies. In answer to Commissioner Scharff's request, Dean Batchelor, Utilities Director agreed to provide an informational report about water reservoirs and groundwater wells.

In answer to Commissioner Segal's query regarding staffing during the first few hours after an emergency, Lloyd indicated that is captured in the plan for the first few hours. Commissioner Segal suggested community members rather than service professionals may be needed to implement a plan during the first few hours.

Councilmember Cormack suggested staff may want to include duration in the risk assessment matrix.

Chair Danaher suggested the process of fuel cells turning natural gas into electricity should be investigated as a backup system for critical City facilities and suggested staff provide interim reports by category. Batchelor indicated he would explore that and integration with the goals.

ACTION: None

ITEM 2: ACTION: Staff Recommendation that the Utilities Advisory Commission Recommend that the City Council Adopt a Resolution Approving the Fiscal Year 2021 Water Utility Financial Plan, Including Proposed Reserve Transfers and an Amendment to the Water Utility Reserves Management Practices, with No FY 2021 Water Rate Increase.

Lisa Bilir, Senior Resource Planner, reported staff proposes a 0% rate increase for the Water Utility for 2021. Much of the work scheduled in the CIP for 2020 and 2021 was budgeted in prior years, and funding has been placed in reserves to pay for much of the work. About half of the costs for the Water Utility are due to supply costs and half due to distribution costs. The San Francisco Public Utilities Commission's (SFPUC) program to make the system more resilient to earthquakes puts an upward pressure on rates. On the distribution side, operations and capital costs put upward pressure on rates. Backup generators will be a significant increase to operations costs once they are installed. Staff has developed two strategies to increase rate stability and to ensure funding for CIP projects is available when needed. The first strategy is to provide an annual, steady stream of funding to the CIP Reserve and utilize the Reserve more. The second strategy is to make more use of the Rate Stabilization Reserve during the five-year CIP because SFPUC is planning large rate increases

beginning in 2023. Staff recommends slight modifications to reserve guidelines to accommodate the strategies. The orange bars in the Water Cost and Revenue Projections graph become steady in 2023, 2024, and 2025 as annual contributions are made to the CIP Reserve. One-time CIP contributions in 2020, 2021, and 2022 make the trajectory not quite as smooth. Projections for revenue go up steadily but slightly less than cost increases due to utilization of the Rate Stabilization Reserve. For 2019-2021, the Operations Reserve is at the maximum guideline level. Staff plans to utilize funds exceeding the maximum guideline. Palo Alto's monthly residential water bill is 11 percent higher than a comparison average of bills in surrounding cities in the medium usage category.

In reply to Commissioner Segal's question about flat CIP expenses when larger projects are planned for every other year, Bilir explained that CIP expenses will be reflected in the CIP Reserve. The annual contribution to fund the expenses will be reflected in the Operations Reserve. Fluctuations should be reflected in the CIP Reserve. In Table 3 of the Financial Plan, capital program contributions are shown in lines 9 and 10 while the planned CIP expenditures are shown in line 12. Line 12 will show the fluctuations. In response to Commissioner Segal's inquiry about the number of full-time equivalents (FTE) allocated to resource management expenses in Figure 10 of the Financial Plan, Jonathan Abendschein, Assistant Director of Resource Management, advised that water efficiency programs are included in resource management, and approximately 3 FTE are allocated for those programs.

In answer to Commissioner Scharff's questions about planned rate increases, CIP projects, and transfers, Bilir stated Table 7 shows the planned rate increases from 2019. There are many reasons for the change in the trajectory of rate increases including use of the Rate Stabilization Reserve and 2019 end-of-year reserve fund balances, which were higher than projected. Reserve fund balances were higher because planned CIP projects were delayed. In 2020 staff planned \$18-\$19 million of CIP work, \$5 million of which was funded from rates and the remainder from reserves. Dean Batchelor, Utilities Director, added that the delay in some work resulted in employee cost savings and fluctuating operational costs. Commissioner Scharff remarked that the CIP projects will cost more due to increasing construction and employee costs. Abendschein explained that the change in CIP schedules may not reflect 100% of project costs in one year but over two or more years. In response to Commissioner Scharff's question regarding transfers to the Rate Stabilization Fund leaving insufficient funding for CIP projects, Bilir explained that funding for rate stabilization comes from rate increases. The trajectory for rate increases is designed to save additional funds in the Rate Stabilization Reserve to reduce rate increases in the future. Commissioner Scharff requested the rationale for staff recommending no rate increase when costs are increasing 4%. Bilir clarified that the Rate Stabilization Reserve balance exceeds the maximum guideline level, and funding is available to stabilize rates. Additionally, SFPUC reduced its rate trajectory after preparation of the staff report, and water sales are increasing. Therefore, the numbers will change. Batchelor added that explaining a rate increase to the public is difficult when SFPUC rates are projected to decrease and the reserve balance is above the maximum guideline level. Abendschein stated staff anticipates additional one-time savings and costs decreasing over the next few years.

In response to Commissioner Jackson's inquiry about the backup generators being a capital cost, Bilir related that staff categorized it as an operating cost. Abendschein added that tentative plans are to lease rather than buy the generators, which makes them an operating expense. In reply to Commissioner Jackson's query regarding the typical Palo Alto customer paying more for water and less for electricity than customers in nearby cities, Bilir explained that some cities do not purchase all their water supplies from SFPUC. Staff is studying costs to determine the factors that contribute to Palo Alto's higher water rates. Abendschein added that one factor is CPAU's higher level of spending for capital replacement projects.

In answer to Chair Danaher's question about the \$3 million cost due to the drought, Batchelor advised that it affected the electric budget. In reply to Chair Danaher's query regarding the ability to increase spending for capital projects should construction costs decrease, Abendschein indicated additional spending depends upon the utility. The Water Utility has a Capital Reserve Fund that could be used. Chair Danaher suggested staff explore the possibility of increasing capital projects should construction costs decrease. Batchelor

added that the economies of scale from the every-other-year replacement projects could result in savings that could fund additional replacements.

Commissioner Scharff commented that the issuance of bonds, if needed, could be timely with the collapse in rates. Abendschein reported staff is reviewing outstanding bonds for an opportunity to refinance them.

Commissioner Scharff suggested the Finance Committee consider the 0% increase and future rate increases carefully. Batchelor agreed to present the suggestion to the Finance Committee. Vice Chair Forssell indicated the UAC budget subcommittee had the same question but felt the Reserve Funds exceeding the maximum levels justified a 0% rate increase. Commissioner Scharff preferred to push the subsidy of rates out further and not to reduce the Reserve Fund to zero.

ACTION: Vice Chair Forssell moved to recommend the City Council adopt a Resolution approving the Fiscal Year 2021 Water Utility Financial Plan, proposed Reserve transfers, amendments to the Water Utility Reserves Management Practices, the maintenance of a balance in the Rate Stabilization Reserve through FY 2028, and no FY 2021 water rate increase. Commissioner Jackson seconded the motion. The motion carried 6-0 with Chair Danaher, Vice Chair Forssell, and Commissioners Jackson, Scharff, Segal, and Smith voting yes and Commissioner Johnston absent.

ITEM 3: DISCUSSION: Discussion of the Presentation of Preliminary Wastewater Collection Rates for FY 2021. This item was continued.

ITEM 4: DISCUSSION: Discussion and Update of Advanced Metering Infrastructure (AMI) and Fiber Network Expansion Planning.

Jeff Hoel recalled in June 2019 staff discussing two approaches for meters to communicate with collectors and inquired about the approach staff selected. If staff has not selected an approach, he asked if the Request for Proposals (RFP) sought bidders' opinions of the two approaches.

Herb Borock understood the City Council would select a proposer to negotiate with and award a contract to. However, staff appears to be negotiating with a proposer. The Council directed the UAC to advise staff on fiber issues. He inquired whether the UAC is advisory to staff and to Council on fiber and how that affects its freedom of action.

Dave Yuan, Strategic Business Manager, reported the RFP for automated metering infrastructure (AMI) will be complex with five components.

In response to Vice Chair Forssell's question about components 2, 3, and 4, Yuan indicated component 4 pertains to installation services for water, gas, and electric meters and component 2 pertains to meter equipment.

In reply to Commissioner Segal's inquiry regarding the inclusion of apps in the RFP, Yuan advised that the meter data management (MDM) company offers a portal for use of meter data, and staff is investigating MyCPAU for displaying meter data. Staff is attempting to understand the use of meter data in order to determine an appropriate method to make it available to the customers.

In answer to Chair Danaher's queries, Yuan related that the RFP will be issued in March. The Legal Department has reviewed the draft RFP, and Administrative Services will review it next.

Commissioner Jackson wanted to review the RFP prior to its release.

Commissioner Scharff suggested a mobile app for customers to review meter data in real time. Yuan explained that the MDM system can provide customers with alerts and notifications. The CM portal could be downloaded to a smartphone or tablet and provide alerts. Jonathan Abendschein, Assistant Director of

Resource Management, added that staff has set up home energy and water reports to display interval data in the MyCPAU portal and in a mobile format. Pilot programs have demonstrated that the data could be used to conserve energy.

In response to Vice Chair Forssell's inquiries about the interval being fixed or variable, Yuan understood the interval is flexible, but staff is recommending 15-minute intervals for electric and an hour interval for water and gas. The interval can be changed, but shorter intervals may affect battery life. Vice Chair Forssell remarked regarding the ability to see the carbon intensity of usage at 5-minute intervals.

Yuan continued his presentation, stating the RFP will help guide staff in selecting a mesh network or a point-to-point network. Because of the complexity of the RFP, responses will be due about 10 weeks after its release. Staff will interview vendors over the summer, complete contract negotiations by the end of the year, and seek Council approval of a contract in early 2021. Initial installation and software testing will occur in 2021-2022 with full deployment in 2022-2024.

In reply to Chair Danaher's inquiries, Yuan reported the RFP contains requirements categorized as critical, important, or nice to have. Vendors can suggest additional functions, and functionality can be added to the platform.

Commissioner Smith concurred with Commissioner Segal in that staff should understand and determine uses for data and include components in the RFP that will facilitate customers' use of data.

Commissioners requested a discussion of the capabilities and benefits of different applications.

In answer to Commissioner Jackson's query regarding meter reading, Yuan indicated a basic function of AMI is to obtain usage data electronically, which will eliminate monthly meter reading. Commissioner Jackson urged staff to consider providing a real-time application programming interface (API) to customers or developers so that many apps can be developed and provided to customers. Commissioner Scharff raised privacy concerns about sharing customer data. Yuan clarified that data would contain usage and meter number only, not any personal information.

Yuan further stated a contract for fiber network expansion has been tentatively scheduled for Council approval in April. Phases 1 and 2 of the scope of work pertain to building out the network to support City services. Phases 3 and 4 pertain to expansion of the network for Fiber to the Premise. The Council must approve each phase prior to implementation of the next phase. Phase 1 is scheduled for the summer of 2020, Phase 2 for September 2020 to March 2021, and Phases 3 and 4 in 2021 and 2022.

In reply to Commissioner Segal's inquiry about AMI and fiber, Yuan explained that Phase 1 is design, and Phase 2 is expansion of the fiber network to the AMI collectors.

Councilmember Cormack suggested staff provide side-by-side timelines of the AMI and fiber projects and depict the intersections of the two. There is some question as to whether AMI and fiber are separate projects or if one has to be completed before or in conjunction with the other.

In answer to Commissioner Segal's query regarding the relationship of fiber and AMI, Yuan advised that staff believes the AMI collectors will be located near substations, and expanding fiber to those locations will be good for a mesh network. Transmission of data from the meter to the collector will occur via wireless, and transmission from the collector to the MDM will occur via fiber. Collectors will be purchased and installed and need connections to the fiber network. Commissioner Segal expressed concern about community pushback if collectors are similar to wireless antennas. Chair Danaher reported the signal strength for AMI will be lower than for wireless.

Commissioner Jackson inquired regarding the power needed for collectors to connect to individual meters; the City's ability to control individual meters through AMI; and radio technologies used between meters and collectors and security of those links. Yuan reported those details will be available when the RFP is awarded, but staff can provide the options for those details.

ACTION: None

ITEM 5: ACTION: Staff Recommendation that the Utilities Advisory Commission Recommend that the City Council Adopt a Resolution Amending the City's Electric Supply Portfolio Carbon Neutral Plan.

Lena Perkins, Senior Resource Planner, reported staff proposes to utilize unbundled Renewable Energy Certificates (REC) to neutralize any residual emissions caused by the use of hourly accounting through 2024. Prior to 2024, staff will reevaluate the methodology.

Chair Danaher noted general consensus among Commissioners to utilize hourly accounting and requested additional information regarding the funding of expenses caused by the use of hourly accounting. Prior UAC discussions have revealed that most Commissioners prefer the use of Bucket 3 RECs and the sale of any excess RECs. Commissioner Johnston had informed him via email that he now supports the use of Bucket 3 RECs. Vice Chair Forssell advised that she is now firmly in support of the use of Bucket 3 RECs.

In response to Commissioner Jackson's inquiry about additional options providing more than \$2 million in revenues, Perkins related that the window of opportunity for the additional options is limited and has passed for the current year. However, it may be available in the future. The amendment to the Carbon Neutral Plan to allow the use of Bucket 3 RECs is good until 2024, which is distinct from a discussion about selling less than 100% of load for existing resources. Jonathan Abendschein, Assistant Director of Resource Management, added that a conversation about the proposal to sell load such that it affects the Power Content Label (PCL) will be necessary.

In reply to Commissioner Smith's question regarding the purpose of reevaluating the policy prior to 2024, Perkins indicated CPAU does not have any agreements that will expire and be replaced with Bucket 1 RECs until approximately 2024. In 2023, staff will review the entire portfolio.

In answer to Commissioner Scharff's questions about Emissions Intensities of 13, 9, 9, and 10, Perkins advised that a regulatory change from the California Energy Commission (CEC) attributes non-zero emissions to electricity generation from landfill gas. The current portfolio has a carbon intensity of 13 pounds of CO₂ per megawatt hour (MWh). Staff's recommendation will reduce the carbon intensity to 9 pounds of CO₂ per MWh. The proposal assumes the sale of equal amounts of Bucket 1 resources, but staff could explore options to preferentially sell landfill gas.

Commissioner Jackson suggested staff lead with the use of revenues generated through REC sales for beneficial greenhouse gas (GHG) reduction and electrification programs rather than the technical intricacies of REC exchange.

Abendschein indicated the main cleanup items are removal of residual sections of the Carbon Neutral Plan.

In answer to Vice Chair Forssell's inquiries regarding Sections 3.b.iii, 3.c.ii, 3.d.i and 6.c, Perkins reported the Green Book study appears to represent that the output of hydroelectric projects is about 10% less for the base resource than previously thought. The decrease was included in planning for the supply portfolio. Abendschein understood anthropogenic GHG emissions are related to potential residual emissions associated with landfill gas projects. Because transactions are made in advance of electric generation, staff may not sell all surplus renewables. Any RECs that exceed load can be banked. Abendschein added that Section 3.d.i concerns balancing from year to year as hydroelectric varies. Staff will review the language of Section 3.d.i. The reporting provision is part of current practice and mandated by the CEC.

ACTION: Commissioner Scharff moved to 1) adopt a Resolution to amend the Carbon Neutral Plan to a) amend the definition of carbon neutrality to use an hourly carbon emissions accounting standard; b) if needed, for calendar years 2020 through 2024, authorize limited short-term exchanges of existing California-based renewable energy (Bucket 1 RECs) for out-of-state renewable energy (Bucket 3 RECs) to neutralize any residual emission resulting from the difference between emissions calculated under an annual accounting and hourly accounting methodology; and c) revisions to the Carbon Neutral Plan; and 2) direct staff to return to Council with a review of the Carbon Neutral Plan by the end of 2024 to evaluate the effectiveness of these policy changes and to modify them if necessary. Commissioner Jackson seconded the motion. The motion carried 6-0 with Chair Danaher, Vice Chair Forssell, and Commissioners Jackson, Scharff, Segal, and Smith voting yes and Commissioner Johnston absent.

Abendschein reported the sale of surplus energy will generate about \$2 million annually in earnings. Staff is exploring redirecting half of the earnings to a reserve fund designated for local carbon reduction. The Council delegated authority to the City Manager to direct revenues from the sale of allowances allocated to the Electric Utility under the Cap and Trade Program. Much of the funds will likely be used for building electrification. Spending the funds will be part of future budget proposals.

Bret Andersen suggested staff minimize communication of changes to the Carbon Neutral Plan because the Electric Utility will remain carbon neutral. Local efforts to decarbonize should be prioritized over rate reductions. Electrification will increase the demand for electricity, reduce costs per kilowatt, and avoid the stranded asset of natural gas infrastructure.

Commissioner Scharff concurred with the staff recommendation. He questioned the use of funds if they are not used for rate reduction. He asked if allocating funds to the AMI project would be the same as a rate reduction. Dean Batchelor, Utilities Director, related that the Calaveras Reserves are funding the AMI project. The AMI project will not cause an electric rate increase. Abendschein advised that some funds could be utilized for EV infrastructure or flexing loads to reduce carbon. Fund will be used primarily for reducing electric rates and building electrification.

Commissioner Segal expressed difficulty in supporting use of the funds without more specificity about electrification and decarbonization programs. Perhaps more funding could be allocated to programs that facilitate high-priority changes in the City. Having costs associated with electrification programs would be beneficial.

Vice Chair Forssell strongly supported funding building electrification and decarbonization programs and EV infrastructure investment/incentives. The AMI project is underway, and \$2.1 million is far too little funding for a second transmission line. Reducing electric rates probably will not be a key factor in people's decisions to switch from natural gas to electric.

Commissioner Jackson believed the funds should be expended for green programs such as electrification, decarbonization, and EV infrastructure. He had no interest in using the funds for reducing electric rates.

Perkins clarified that early and aggressive contracting for renewables and the decline in loads have resulted in the surplus. In answer to Vice Chair Forssell's question, Perkins indicated very aggressive electrification could reduce or eliminate the surplus.

Commissioner Smith concurred with Commissioner Jackson's comments, specifically building electrification.

Chair Danaher requested staff include amounts of carbon avoided per dollar spent in future presentations of spending plans.

In reply to Vice Chair Forssell's query regarding utilizing the funds for related projects in other City departments, Perkins stated the funds are intended to support holistic solutions.

Commissioner Smith questioned whether the funds could be used to analyze and/or address efficiencies and inefficiencies in the City's permitting process.

Chair Danaher agreed with Commissioner Smith's comment.

Councilmember Cormack appreciated Attachments C and D and believed they would facilitate communications with the public.

ITEM 6: DISCUSSION: Discussion of Proposed Building Electrification Work Plan for 2020-2021.

Christine Tam, Senior Resource Planner, reported the Work Plan contains new customer programs to encourage electrification and a series of impact analyses to assist with planning and preparing for electrification efforts. The Sustainability and Climate Action Plan (S/CAP) assumes a 50% reduction in natural gas consumption from the 1990 baseline by 2030. Building electrification is the primary strategy to meet the City's GHG reduction goal and is projected to account for 43% of GHG reductions by 2030. Barriers to electrification include consumer awareness, upfront costs, contractor engagement, and funding support. The barriers are not insurmountable; however, electrification may cause strategic and operational challenges for the Electric Utility. Staff proposes a Building Electrification Work Plan for 2020 and 2021 to accelerate electrification and plan for changes to the Electric and Gas Utilities. The Council adopted a mandate for all-electric residential new construction projects, and it becomes effective April 1, 2020. By the end of 2020, staff will present the Council with a proposed mandate for all-electric nonresidential new construction projects. The goals of the Work Plan are to provide support for early adopters through rebate programs and technical assistance; build experience among staff to implement electrification programs; streamline City processes; and evaluate impacts of electrification on utility and municipal operations. Jonathan Abendschein, Assistant Director of Resource Management, emphasized the importance of building staff experience and streamlining processes sooner rather than later. Tam further stated staff will prepare a long-term Electrification Work Plan once the S/CAP is adopted in 2021. Over the next two years, staff will engage in community outreach, solicit goals and key actions, and conduct an impact analysis for the S/CAP update. Staff is currently seeking approval of funding and staffing for Work Plan programs. In fiscal year 2021, staff will begin conducting an impact analysis of electrification concurrently with expanding programs. Types of customer programs range from education/pilot programs and rebates to on-bill financing and subsidized direct install. Administration and costs for the customer programs will increase with the complexity of programs. Existing customer programs offer heat pump water heater rebates, electrification readiness assessments, loans of induction cooktops, and replacement of gas furnaces with heat pumps for one low-income, multifamily building. The Work Plan focuses on single-family homeowners because they are interested in helping the City meet its goals. Staff will propose a 1,000 heat pump water heater challenge and a program to seek electrification of a block subject to a gas pipeline replacement. Abendschein added that staff will attempt to overcome barriers and demonstrate substantive progress in the single-family sector. Staff will conduct a range of analyses of the impacts of electrification on the Gas and Electric Utilities. The top priority is addressing aging electric infrastructure. A second priority is to determine the impacts of building electrification on the Gas Utility's finances and infrastructure, the Electric Utility's finances and infrastructure, and municipal workload. Another important topic is achieving large-scale building electrification in the most cost-effective way possible. Proposals for funding and staffing will be presented in the near term. Staff does not anticipate the Work Plan having a rate impact.

In reply to Commissioner Scharff's query regarding the impact of achieving S/CAP goals on Gas Utility revenues, Abendschein indicated the impact analysis for that will be conducted under the Work Plan. Commissioner Scharff wanted to understand the timeframe for the Gas Utility's viability in relation to the 2030 S/CAP goal.

Commissioner Jackson felt the UAC, Council, and CPAU should clearly state the goals and priorities of the Electrification Work Plan to increase consumer awareness. The City needs to motivate, mandate, and incentivize electrification; expand Reach Code electrification requirements to remodel projects; promote an

all-electric rate plan; streamline and simplify the permitting process; and expand rebate plans. On-bill financing will be extremely important for electrification. Homeowners will have to demand all-electric appliances rather than waiting for contractors to offer them.

Bret Andersen believed the City should mandate participation in programs, but the programs must be inclusive, affordable, and simple. On-bill financing with no credit checks will be important. To meet the goal of an 80% reduction by 2030, 2,000-2,500 water heaters should be converted annually to heat pump water heaters.

Councilmember Cormack wanted to see metrics for the Work Plan, particularly in terms of dollars or GHG emissions avoided.

Commissioner Segal concurred with Commissioner Jackson's comments. The heat pump water heater rebate program has garnered little participation. Mandating electrification for residential remodel projects is important. Tam reported the Planning Department is exploring mandates for substantial remodel projects to comply with Reach Code requirements. Commissioner Segal expressed concern about the delay in implementing programs.

Vice Chair Forssell supported prior comments.

Chair Danaher recommended the analyses include metrics such as dollar per avoided ton of carbon. Abendschein referred Commissioners to the analysis in Attachment D, which does not include the full range of carbon alternatives. Single-family homeowners are well served by the existing EV industry. However, multifamily buildings provide few, if any, EV chargers. Programs for that market will be extremely expensive based on dollars per ton but will align with a government agency's role to serve underserved markets. Metrics are needed, but discussion of programs will cover multiple dimensions. The proposals will be included in budget and rate discussions with the UAC.

Commissioner Jackson commented that the Work Plan is a great start. The UAC and Council need to motivate and set the direction for the community.

Commissioner Smith agreed with the focus on single-family homeowners. The desire to build momentum and create an impact with programs is great, but barriers need to be eliminated, specifically the current permitting process. If funding and willingness are available, programs can have a large impact.

Chair Danaher did not believe conservation and building efficiency should be considered independently. Tam explained that energy efficiency savings are included in the business-as-usual scenario. As part of electrification efforts, staff will promote the slogan "efficiency first."

In answer to Vice Chair Forssell's inquiry regarding a requirement to replace a water heater with a heat pump water heater, Tam did not believe the City had the authority to require that. Staff at the Bay Area Air Quality Management District (BAAQMD) is determining whether gas furnace or water heater replacement will need to meet minimum NOx standards.

Commissioner Smith raised the issue of electrical blackouts affecting homeowners with all-electric appliances and the need for a second transmission line. Commissioner Scharff clarified that recent blackouts were not caused by transmission line failures. California currently has no reliable electricity source.

Commissioner Scharff suggested community education about the small risk of rolling blackouts in Palo Alto.

ACTION: None

ITEM 7: ACTION: Selection of Potential Topic(s) for Discussion at Future UAC Meeting.

Chair Danaher noted Commissioners have requested an update regarding EV chargers, reliance reports by utility, reviews of emergency water supply and water supply in drought situations, information regarding on-bill financing and permitting, details of the AMI project and its capabilities, and a discussion of the sale of additional Bucket 1 RECs.

Dean Batchelor, Utilities Director, advised that the Development Services Department handles permitting and could present information to the UAC. The two departments collaborate frequently. Staff can present information about water supply and AMI in June and Bucket 1 RECs in the fall.

Commissioner Scharff requested a discussion of the long-term future of the Gas Utility. Jonathan Abendschein, Assistant Director of Resource Management, indicated fall would be a good time for the discussion.

Councilmember Cormack related that the Home Genie pop-up at Mitchell Park was packed with people earlier in the day.

ACTION: None

NEXT SCHEDULED MEETING: April 1, 2020

Meeting adjourned at 10:16 p.m.

Respectfully Submitted
Tabatha Boatwright
City of Palo Alto Utilities