



## UTILITIES ADVISORY COMMISSION MEETING FINAL MINUTES OF MARCH 6, 2019 REGULAR MEETING

### CALL TO ORDER

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

Present: Vice Chair Schwartz, Commissioners Forssell, Johnston, Segal, and Trumbull  
Absent: Chair Danaher, Commissioner Ballantine

### ORAL COMMUNICATIONS

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None.

### APPROVAL OF THE MINUTES

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Commissioner Trumbull moved to approve the minutes of the February 6, 2019 meeting as presented. Commissioner Forssell seconded the motion. The motion carried 5-0 with Vice Chair Schwartz and Commissioners Forssell, Johnston, Segal, and Trumbull voting yes, and Chair Danaher and Commissioner Ballantine absent.

### AGENDA REVIEW AND REVISIONS

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None.

### REPORTS FROM COMMISSIONER MEETINGS/EVENTS

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Vice Chair Schwartz reported she attended the Water Advanced Metering Infrastructure (AMI) Norcal meeting led by the City of Palo Alto Utilities (CPAU), where she learned that AMI technology for water is not as developed as for electricity. CPAU has an opportunity to do some interesting and novel things with AMI for water. The utilities participating in the meeting are willing to share information and to collaborate. Based on comments from other utilities, Staff's approach to AMI implementation should prevent future problems. *their system wide meter audit should reduce future problems.* The Electric Program Investment Charge (EPIC) Symposium showcased new clean energy technologies, many of which are in the idea stage. Projects in the concept phase should be distinguished from projects that have been implemented. In the State of the City address, the Mayor's approach to housing was analytical, which could reflect his participation as Council liaison in UAC meetings. A webcast from the Smart Energy Consumer Collaborative indicated basic approaches to energy literacy and community involvement work consistently. During the webcast, a gentleman presented interesting information regarding data analytics, and he could be a good resource for CPAU.

### GENERAL MANAGER OF UTILITIES REPORT

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

**SunShares** – The final tallies are in and Palo Alto was the top outreach partner of all cities participating in the 2018 Bay Area SunShares solar group-buy program both in terms of the number of solar contracts signed and the number of kilowatts of rooftop solar capacity that will be installed through the program. Palo Alto

residents signed 23 contracts for a total of 115 kilowatts of rooftop solar. Palo Alto was also the #1 city for purchases of electric vehicles through SunShares. Our residents purchased 40% - that's about 5 out of 12 - of the total number of EVs sold through the program Bay Area-wide.

**Workforce Recruitment** – Over the past six months, Utilities staff has been participating in job fairs and career panels in an effort to recruit new employees to our organization. These activities are in line with the Workforce Priority strategies adopted with the updated Utilities Strategic Plan. One specific event this past month included the California Campus Career Day at the Northwest Lineman College in which staff was able to meet graduates and alumni to talk about lineman opportunities with CPAU.

**Spring Landscape Workshops** – Our spring landscape workshop series begins this Saturday, March 9 with a focus on rainwater harvesting to help residents conserve water in the landscape and reduce runoff. Please feel free to join us from 9:00 to noon at the Mitchell Park Community Center. Attendees will also learn how to take advantage of rebates for rain barrels, cisterns, green roofs and permeable paving. Register at [cityofpaloalto.org/workshops](http://cityofpaloalto.org/workshops).

**APPA Webinar on Thermal Microgrids** – Next Wednesday, March 13, CPAU staff will participate in an American Public Power Association (APPA) webinar on thermal microgrids. The webinar, titled "Improving Economics, Sustainability, and Reliability in the Building Energy Sector with a Thermal Microgrid," shares results of our thermal microgrid study conducted this past summer. Please let us know if you would like to listen in and need any assistance with accessing the APPA webinar.

**AMI Workshop** – On March 27, the City is partnering with the Bay Area Water Supply and Conservation Agency (BAWSCA) and Valley Water to host a workshop on AMI. The goals are to support member agency efforts to advance the implementation of AMI within their respective service areas, provide guidance on how to use AMI data to improve water use efficiency, and identify potential opportunities for regional coordination. The workshop will be held at the Mitchell Park Community Center from 9:30 to 3:00.

**Great Race for Saving Water & Earth Day Festival** – Join us on Saturday, April 13 for the City's 6<sup>th</sup> annual fun run and walk plus Earth Day festival. Participants can walk, run, bike or stroll in the 5 kilometer or 10K distances and let the kids dash to chase the "running toilet." After the race, we host a free festival with electric vehicle ride and drive, live music, nature activities, community booths and family-friendly educational fun. The event is held at the Palo Alto Baylands Athletic Center from 9:00 to 1:00. There will be a special ribbon-cutting ceremony for the San Francisquito creek flood control project at the starting line right before the race. Find details and registration at [cityofpaloalto.org/earthday](http://cityofpaloalto.org/earthday).

**Now Hiring Paid Internship Positions** – Do you know a college student interested in gaining work experience while in school? Please encourage them to apply for one of the City's paid internship positions by March 24. There are openings for work in Utilities Communications, Zero Waste, Urban Forestry, Community Services, and more. Employment opportunities are available on the City's website at [cityofpaloalto.org](http://cityofpaloalto.org).

In reply to Vice Chair Schwartz's request for a definition of thermal microgrid, Jonathan Abendschein, Assistant Director of Resource Management, explained that a thermal microgrid is a district heating and cooling system. Stanford University's system utilizes waste heat from cooling loads for other uses such as water or space heating.

## **COMMISSIONER COMMENTS**

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None.

## **UNFINISHED BUSINESS**

None.

## **NEW BUSINESS**

### **ITEM 1: DISCUSSION: Discussion and Status Update on the Electric Utility's Overhead to Ground Conversion Program.**

Debra Lloyd, Acting Assistant Director of Engineering, reported staff began undergrounding electric facilities in Palo Alto in 1965. District 8 was formed but has not been undergrounded. Districts 47 and 46 are being undergrounded and should be complete soon. Districts 42 and 43 will be undergrounded next. Staff has proposed six additional districts for undergrounding. Staff anticipates a 30-year planning horizon for undergrounding given the lack of staff resources. The City has 304 or 306 miles of primary distribution lines, of which approximately 190 miles or 62% are underground. Including secondary distribution lines and service drops reduces the amount of underground lines to approximately 50%.

In reply to Commissioner Segal's inquiry regarding the gray areas on the map of underground districts, Lloyd advised that the gray areas have underground facilities but are not underground districts. Districts are formed to convert overhead facilities to underground facilities.

Lloyd continued the presentation, stating slightly more than 52% of properties are served by underground facilities, leaving approximately 14,000 residential properties being served by overhead facilities. In the six proposed districts, a small number of properties will convert to underground service because many properties are served by overhead facilities located behind the properties. Undergrounding facilities located at the rear of properties may not be possible.

In answer to Vice Chair Schwartz's query regarding customers paying for undergrounding, Dean Batchelor, Utilities Director, explained that 100% of customers in a district have to agree to undergrounding before undergrounding can occur. The customer typically pays \$3,000-\$6,000 for the connection and upgrading his electric panel. Lloyd related that if customers who are currently served by overhead facilities at the rear of the property can be served by underground facilities at the front of the property, the cost to the customer will be higher because the electric panel will have to be moved to the front of the property.

In response to Commissioner Forssell's inquiry regarding AT&T contributing to the cost to underground facilities at the rear of the property, Batchelor reported AT&T has stated it will contribute to undergrounding its equipment and wires but not to undergrounding infrastructure. Currently, AT&T and Comcast contribute 50% of undergrounding project costs. Lloyd added that staff would open negotiations with AT&T if the Council directs staff to move more aggressively in residential areas. AT&T has agreed to the boundaries of the six proposed districts.

In reply to Commissioner Johnston's question regarding properties shown in red on the map, Lloyd indicated only the properties shown in red will be served by underground facilities. In answer to Commissioner Johnston's question about the design life of overhead equipment, Batchelor advised that overhead wiring can last 10-20 years longer than underground wiring because heat in underground facilities degrades the insulation around wiring faster. In response to Commissioner Johnston's query regarding scheduling undergrounding projects, Batchelor related that staff schedules undergrounding projects at the end of the useful life of overhead facilities, unless an area has a higher than usual number of outages. In reply to Commissioner Johnston's question of whether staff wanted a review the undergrounding program, Lloyd responded no. Staff's intent in presenting the information is to update the UAC regarding the progress of undergrounding facilities. In response to Commissioner Johnston's query regarding constraints on progress, Lloyd reported the main constraints are AT&T and Comcast agreement to projects and the additional cost to customers if a project provides only a local benefit.

In answer to Commissioner Forssell's question of whether hiring more engineering staff could reduce the 30-year horizon, Lloyd advised that assistance from a consultant for engineering design could increase the pace of projects, but larger and more urgent projects could continue to delay undergrounding projects. In reply to

Commissioner Forssell's query about a best-case timeline, Lloyd replied under ideal conditions staff could complete one underground district every 3-4 years with some overlap of projects.

In answer to Commissioner Segal's inquiry about properties that connect to underground facilities having to pay a second time when facilities at the rear of the property are undergrounded, Lloyd advised that the customers will not have a direct expense for the undergrounding at the rear. In reply to Commissioner Segal's query regarding staff obtaining customer consent to underground, Batchelor indicated typically staff seeks customer consent as soon as a district is formed.

Council Member DuBois stated that given the length of time since the Council reviewed the undergrounding program, it may be worthwhile for staff to return to Council for a policy discussion. In response to his question regarding the City's ability to force an underground district, Lloyd related that the City could pay 100% of the costs for undergrounding. Staff can ask the City Attorney's Office about other methods to obtain AT&T's and Comcast's participation in undergrounding projects.

Vice Chair Schwartz requested a comparison of overhead and underground districts in terms of frequency of outages, length of service restoration times, and costs to support underground and overhead districts. She inquired whether AMI will increase the cost of undergrounding and repairs to underground facilities; about the consequences of implementing Fiber to the Premise (FTTP) after AT&T and Comcast have contributed to undergrounding; and about financing arrangements extended to customers for undergrounding costs. Jimmy Pachikara, Acting Engineering Manager, advised that underground facilities are more expensive to maintain and require more time to restore an outage compared to overhead facilities. Batchelor reported customers can pay undergrounding costs over 10 years. Staff will ask the City Attorney's Office about the consequences of implementing FTTP.

Commissioner Forssell remarked that quantifying the safety and reliability of overhead versus underground facilities could be worthwhile. Perhaps staff could include a question about a neighborhood's desire for undergrounding in future surveys.

**ACTION:** None

**ITEM 2: DISCUSSION:** Discussion of New Online Customer Portal.

Robert Hinden requested more details about the security features for the portal.

Kevin Enderby, Principal Business Analyst, reported the My Utilities Account (MUA) was built in 2009 and allows customers to view their invoices and usage, pay their bills, and elect electronic billing. MUA has been modified to provide a move-out feature and to be more user-friendly. The SAP application has limited upgrade options that do not meet requirements. Approximately 19,000 accounts have registered for MUA. Approximately 5,400 one-time payments and 7,500 recurring payments are made through MUA each month. Approximately 4,500 accounts receive electronic bills only, and approximately 1,200 accounts receive both electronic and paper bills. A recent survey of customers found MUA provides good information, but it is busy and not intuitive. The text size is small, and the font is not standard across pages. Objectives for the new customer portal were to increase customer engagement through new functionality, features, and screens; increase customer satisfaction and productivity by providing a mobile experience and a single sign-on; reduce incoming phone calls; improve security features, including more password options, more stringent requirements for passwords, and additional protection for payment information; and to encourage energy efficiency and conservation through online tools. Two assessments of MUA have been performed, and the results of the assessments contributed to the design of the new portal.

In response to Vice Chair Schwartz's query of whether staff intends to build a custom portal when many good portals are available commercially, Enderby replied no.

Enderby continued the presentation, stating 1,200 customers participated in a survey about MUA. The most common customer comments concerned a better presentation and a more intuitive interface. Utilities staff and staff from other municipalities provided input as well. Based on information obtained from the assessments, survey, and staff input, a Request for Proposals (RFP) for a customer portal vendor was issued in 2017. From the RFP responses, staff selected Smart Energy Water (SEW). The new portal will include a mobile experience, a modern look and feel, enhanced security features, and information and features requested by customers. In addition, a separate mobile app will be available for users. The portal dashboard will contain movable tiles for billing, outages, notifications, comparisons, account information, usage, and efficiency. Usage and cost data over the past 12 months for electric, water, and gas will be presented in bar graphs.

In reply to Commissioner Forssell's inquiry about customizing the user interface for CPAU, Enderby explained that SEW provided a template for the interface, and staff added features within the parameters of the template.

Enderby further reported the browser view of the portal on a mobile device will have the eight tiles on the left side of the screen with data for each tile on the right once the user clicks a tile. The mobile app will be available for review in a few months.

Vice Chair Schwartz commented that SEW's mobile app is really nice.

Enderby continued the presentation, indicating a soft launch of the new portal is planned for 100-200 residential and commercial customers. Emails will be sent to customers advising them of their participation in the soft launch. A survey of detailed questions will be sent to participants a few weeks after use, and feedback will contribute to adjustments to the portal. A full launch of the new portal is planned for the end of the summer. SEW wants to complete all revisions and enhancements to the portal prior to releasing a mobile app. MUA will be phased out after a full launch of the new portal.

In answer to Commissioner Segal's question regarding multiple members of a household having access to the app, Enderby explained that each account is associated with a single email address, but guests can be given access to an account.

Enderby further reported any enhancements not included in the 2019 launch of the portal will be included in 2020. Text alerts and email notifications will be added in the future. Outreach includes announcement and tutorial videos, print and digital ads, mailers, and social media.

Vice Chair Schwartz announced SEW is hosting an event in Redwood City and encouraged staff to attend the event. Enderby reported staff has not received an invitation to the event; however, the event is shown on SEW's list of upcoming events.

In answer to Council Member DuBois' query about CPAU appearing in financial institutions' electronic bill pay systems, Enderby indicated that could occur during the Customer Information System (CIS) upgrade or implementation. Staff attended an SEW event a few weeks ago and engaged with the City of Pleasanton regarding SEW and CPAU's roadmap.

Vice Chair Schwartz assumed future AMI data could be incorporated into the portal.

Commissioner Forssell volunteered to participate in the soft launch. Dave Yuan, Strategic Business Manager, indicated staff will send Commissioners invitations to participate in the soft launch.

**ACTION:** None

**ITEM 3: ACTION:** Staff Recommendation that the Utilities Advisory Commission Recommend the City Council Adopt Resolutions (1) Approving the Fiscal Year 2020 Wastewater Collection Financial Plan and (2) Increasing Wastewater Rates by 7% by Amending Rate Schedules S-1 (Residential Wastewater Collection and Disposal), S-2 (Commercial Wastewater Collection and Disposal), S-6 (Restaurant Wastewater Collection and Disposal), and S-7 (Commercial Wastewater Collection and Disposal—Industrial Discharger).

Eric Keniston, Senior Resource Planner, reported staff recommends a 7% rate increase in wastewater collection rates and projects 6-8% annual increases over the next four years. Consistent with the Utilities Strategic Plan, staff reviews multiyear strategies, personnel actions, performance metrics, and expenditures in an effort to contain costs and lower rate increases. The Wastewater Utility is comprised of a collection system and a treatment system. The collection system funnels wastewater to the Regional Water Quality Control Plant (RWQCP). The wastewater treatment plant treats effluent from Palo Alto, Stanford University, East Palo Alto, Los Altos Hills, Los Altos, and Mountain View. CPAU operates the collection system while Public Works operates the RWQCP. The Wastewater Utility's costs are split roughly 50% for wastewater collection and 50% for wastewater treatment. Treatment costs have grown about 8% per year since 2016 and are projected to grow approximately 6% annually in the future. Collection costs have grown about 4.5% per year since 2016 and are projected to grow approximately 1% annually in the future. Within treatment costs, operations costs have grown approximately 9% per year because of the maintenance needs of the aging RWQCP. Because of capital improvements to the RWQCP, treatment operations costs should increase only 4% per year, but debt service costs for the treatment plant will increase about 17% annually.

In response to Vice Chair Schwartz's inquiry regarding retirement of the incinerator, Phil Bobel, Public Works Assistant Director, advised that incineration of sewage sludge is being phased out, and sludge will be trucked to other facilities for at least the next five years. Eliminating the incinerator will reduce CO<sub>2</sub> emissions and reduce costs. Debt service costs will increase due to capital projects to replace RWQCP components other than the incinerator. Sewage sludge will always release CO<sub>2</sub>, but composting sludge will release CO<sub>2</sub> more slowly and create a product usable in agriculture.

Keniston further reported capital projects at the RWQCP will total approximately \$100 million over the next several years. Collection system costs are split approximately 50% to operations costs and 50% to capital costs with debt service costs scheduled to be paid in full in 2023. Since 2016, capital costs have increased approximately 8% per year while operations costs have increased approximately 1.5% per year. In the future, operations costs should increase about 2.5%. Staff projects capital costs between 2019 and 2024 will be flat because staff anticipates only small capital projects over the next few years. The main drivers for increases in collection costs are overhead costs and underground construction costs. The median monthly residential bill is approximately 29% less than the average of other cities' bills.

In reply to Commissioner Segal's question about the average wastewater bill for Los Altos Hills, Stanford University, and East Palo Alto, Bobel indicated the average bill for neighboring communities served by the RWQCP is similar to Palo Alto's average. The treatment plant serving cities in southern San Mateo County (e.g. Redwood City) has already started capital improvements; therefore, the rates are higher for those cities. The rates for cities further south are similar to Palo Alto's rates because the San Jose treatment plant has not started capital improvements.

In answer to Commissioner Forssell's query regarding the inclusion of Hayward in the bill comparisons, Bobel explained that the treatment plant serving Hayward has not started capital improvements. Jonathan Abendschein, Assistant Director of Resource Management, added that staff utilizes the same comparison cities for all utilities. Hayward is a comparison city because it is similar in size to Palo Alto, is located in the East Bay, has a slightly lower median income, and often has slightly lower costs for its utilities.

Keniston continued his presentation, stating Palo Alto's rates have increased approximately 4.5% annually while rates for comparison cities have increased approximately 6% annually. However, rate increases over the past five years have been greater than the Consumer Price Index (CPI) for the Bay Area. Fiscal year (FY) 2020 total costs will increase approximately 1% over FY 2019 total costs due to increases in treatment costs

and ongoing operations costs and a decrease in ongoing capital costs. Dean Batchelor, Utilities Director, added the lack of staff is causing the reduction in capital projects and, consequently, capital spending in FY 2020. Historical spending levels will probably return in 2-3 years. Abendschein indicated the 2020 Wastewater Collection Financial Plan reflects a slightly higher rate trajectory than provided in the presentation. After considering a realistic pace for capital improvement projects over the next few years, staff determined rate increases would more likely be 7% and 6% rather than 7% and 8%.

Vice Chair Schwartz suggested staff draft an explanation of the rate increases in simple language and share it with the community via social media and news releases. Abendschein related that staff routinely develops talking points and will share them with the UAC. Catherine Elvert, Communications Manager, explained that staff develops a comprehensive and proactive communications strategy for sharing the drivers for costs and efforts to contain costs.

In answer to Commissioner Johnston's request for updated projections of reserve balances based on the revised rates, Keniston reported the rate increases maintain the operations reserve fund within the minimum and maximum guidelines. Commissioner Johnston remarked that the purpose of raising rates is to cover costs, which can be depicted in a graph of reserve balances. Keniston added that the average of collection capital expenses would be lower than stated in the prior projections. Bobel advised that the RWQCP reserve fund is separate from the discussion. Because the RWQCP partners do not pay into the reserve fund, it has a negative balance at the current time.

In response to Commissioner Segal's question regarding Palo Alto and Mountain View paying approximately the same amounts for the RWQCP, Bobel clarified that Mountain View has a larger residential population than Palo Alto; however, Palo Alto's population increases greatly during the workday.

**ACTION:** Commissioner Trumbull moved to recommend the City Council adopt resolutions (1) approving the fiscal year 2020 Wastewater Collection Financial Plan and (2) increasing wastewater rates by 7% by amending Rate Schedules S-1 (Residential Wastewater Collection and Disposal), S-2 (Commercial Wastewater Collection and Disposal), S-6 (Restaurant Wastewater Collection and Disposal), and S-7 (Commercial Wastewater Collection and Disposal—Industrial Discharger) with the revised projections proposed by staff. Commissioner Johnston seconded the motion. The motion carried 5-0 with Vice Chair Schwartz and Commissioners Forssell, Johnston, Segal, and Trumbull voting yes, and Chair Danaher and Commissioner Ballantine absent.

**ITEM 4: DISCUSSION:** Discussion and Staff Update on Fiber and AMI Planning.

Dave Yuan, Strategic Business Manager, reported staff proposes canceling the RFP for the Fiber to the Node (FTTN) business case and reissuing an RFP with a focus on AMI, engineering design, and a construction cost estimate. The RFP could be issued in May. Staff will provide the Council with an update in April.

In reply to Vice Chair Schwartz's question about the applications of fiber, Yuan indicated it would be a part of the new RFP.

**ACTION:** None

**ITEM 5: ACTION:** Selection of Potential Topic(s) for Discussion at Future UAC Meeting.

Vice Chair Schwartz suggested a future item regarding retrofits for housing stock and best practices for new construction with respect to climate change. Jonathan Abendschein, Assistant Director of Resource Management, advised that the State has published codes for new construction, and staff is reviewing reach codes for the City. Utility efficiency programs can benefit existing housing. Vice Chair Schwartz remarked that the item could be compatible with the Council's direction and could excite the community to improve its response to climate change.

In answer to Commissioner Forssell's inquiry regarding the April Green Acres update, Dean Batchelor, Utilities Director, indicated the item will likely be an action item. Vice Chair Schwartz requested a comparison of underground and overhead facilities with respect to outages and restoration of service for the discussion.

**ACTION:** None

**NEXT SCHEDULED MEETING:** April 3, 2019

Meeting adjourned at 9:08 p.m.

Respectfully Submitted as corrected:

- REPORTS FROM COMMISSIONER MEETINGS/EVENTS

Tabatha Boatwright  
City of Palo Alto Utilities