



UTILITIES ADVISORY COMMISSION MEETING MINUTES OF FEBRUARY 5, 2020 REGULAR 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, Johnston, Segal, and Smith
Absent: Commissioner Scharff

ORAL COMMUNICATIONS

None.

APPROVAL OF THE MINUTES

Commissioner Jackson clarified his comments under Reports from Commissioner Meetings/Events noting that the data from the online customer portal is not computer readable, where the draft minutes said "easily readable." He was referring to the need for the data to be available in a CSV or similar format.

Commissioner Jackson moved to approve the minutes of the December 4, 2019 meeting as amended. Commissioner Segal seconded the motion. The motion carried 6-0 with Chair Danaher, Vice Chair Forssell and Commissioners Jackson, Johnston, Segal, and Smith voting yes, and Commissioner Scharff absent.

AGENDA REVIEW AND REVISIONS

None.

REPORTS FROM COMMISSIONER MEETINGS/EVENTS

None.

GENERAL MANAGER OF UTILITIES REPORT

Jonathan Abendschein, Assistant Director of Resource Management, delivered the General Manager's Report.

Gridshift Hackathon - Our Utilities team partnered with Bay Area clean energy providers including Silicon Valley Clean Energy, Peninsula Clean Energy, East Bay Clean Energy, and an early-stage venture firm, Powerhouse, to co-sponsor a "hackathon" January 31 through February 1. Over a 24-hour period of time, the "Gridshift Hackathon" brought together teams of software developers, energy experts, and others to develop code to reduce or eliminate the carbon footprint in the building, transportation, and utility sectors. Over 120 participants registered, and 16 teams completed apps to compete for prizes. \$16,000 in cash prizes were awarded to the three winning teams. The submissions, code, video and photos are available online and can be sent out. Lena Perkins represented Palo Alto on the judging panel as she manages the Program for Emerging Technologies. You can reach her for further details at Lena.Perkins@cityofpaloalto.org.

Nissan Leaf Rebates for Public Power Customers - Thanks to a partnership with the American Public Power Association (APPA), City of Palo Alto Utilities customers are eligible for special rebates on Nissan Leaf electric vehicles for a limited time. The rebates were originally available through the beginning of January but have been extended to March 31, 2020. This is a great opportunity to consider making the switch to an electric vehicle and help support the City and Utilities Department's sustainability and climate action goals. Details at cityofpaloalto.org/EV.

Soft Launch of the MyCPAU New Online Customer Site - CPAU is starting a soft launch roll out for our new online utility account management service, called MyCPAU. This improved customer website will replace the existing online My Utilities Account. MyCPAU offers a fast and secure way to pay your bill online and set up automatic or recurring payments. Customers will be able to view monthly utility usage, learn about opportunities to lower their bills, set notification preferences and alerts, and receive direct digital support from Customer Service staff. Commissioners have been invited to participate in the soft launch and help us beta test the new service. We are excited about this much-needed upgrade to our online utility customer services and thank you in advance for any feedback you care to share. Visit cityofpaloalto.org/MyCPAU for more information.

The Great Race for Saving Water and Earth Day Festival – We are excited to announce that this year's Earth Day Festival and Great Race for Saving Water will be held on Saturday, April 25 at the Palo Alto Baylands Athletic Center. Join us for a day of fun with community partners for a 5K, 10K fun run and walk plus kids dash. Following the race is an expo celebrating the 50th anniversary of the first Earth Day, including live music, food trucks, EV ride & drive, nature activities, raffle drawings, and more! Come join the fun while learning as we raise awareness, build education, and community engagement for climate action and protection of Earth's natural resources. To register and learn more, please visit cityofpaloalto.org/earthday.

Fiber to the Home Update – Staff has received five proposals in response to the Request for Proposals (RFP) and interviewed three proposers. Staff is conducting background checks on the three proposers. A contract will be presented to the Council in March. Thanks to Commissioners Smith and Jackson for their assistance in reviewing the proposals.

In response to Vice Chair Forssell's query, Councilmember Cormack indicated the Nissan Leaf rebates range from \$1,500 to \$3,500.

COMMISSIONER COMMENTS

Commissioner Smith noted that MyCPAU is a tremendous improvement over My Utilities Account.

Vice Chair Forssell added that usage data can be downloaded through MyCPAU.

UNFINISHED BUSINESS

None.

NEW BUSINESS

ITEM 1: ACTION: Staff Recommends the Utilities Advisory Commission (UAC) Recommend that Council Accept the Northwest County Recycled Water Strategic Plan Report.

Karla Dailey, Acting Utility Program Services Manager/Senior Resource Planner, reported acceptance of the Northwest County Recycled Water Strategic Plan Report (Report) will not result in approval of any projects. Negotiating the regional water reuse project agreement among the City, Valley Water, and the City of Mountain View would have been difficult without the Report. The Report lays the foundation for future regional decisions and projects. Projects contained in the Report should be incorporated into a Water Integrated Resources Plan and may be included in a broader "One Water" report that covers all flows of water into and out of Palo Alto and their various uses within Palo Alto.

In reply to Commissioner Johnston's inquiry regarding a timeframe for the local salt removal facility, Dailey advised that an RFP will be released any day now. Staff anticipates construction will begin in early 2021 and be completed in 2023. With respect to Commissioner Johnston's query about the options in Table 1 of the staff report, Dailey indicated the options will not be viable if Valley Water exercises its option. At this time, Valley Water has not made a decision about its option, and Valley Water has ten years to make the decision. Alternatively, Valley Water can pay the City \$1 million a year for ten years without taking the water, but at the end of ten years Valley Water does not have any rights to the water. Commissioner Johnston commented that it could be 10 or 20 years before the viability of some options are known.

In answer to Commissioner Smith's question regarding planning for a worst-case scenario in the context of the Valley Water Transfer, Dailey related that options not consistent with the Valley Water Transfer will not be included in concept options in a One Water Report. Commissioner Smith inquired whether Options A1, A2, and A3 described in the staff report are unaffected by the new plant and the sale of effluent, to which Dailey replied yes. Commissioner Smith requested any reasons, excluding funding, for not implementing Options A1, A2, and A3. Dailey stated funding is the main issue.

In response to Commissioner Segal's inquiry about installing pipelines for Option A1 during construction of other underground projects, Dailey explained that installing trunk lines without Council approval would be quite expensive, even during construction of other projects. Jonathan Abendschein, Assistant Director of Resource Management, added that a trench would be needed for the trunk lines, which would be a large additional cost.

Councilmember Cormack noted the Cubberley Draft Concept Plan discusses the potential use of recycled water.

Chair Danaher suggested the idea of how much insurance the community would buy to ensure sufficient water is available for gardens and tree canopy be incorporated into the requirements for options, and suggested staff combine Tables 1 and 3 in the staff report, placing Options C1, C2, and C3 at the bottom as potential future options, and add a column for years to complete. In response to his question about the analysis of needs and an incremental amount to protect tree canopy and gardens, Dailey advised that the Report and a decision about the overall portfolio overlap with actions taken in a drought. Drought resilience will be an attribute incorporated into the One Water evaluation of the full supply portfolio.

ACTION: Commissioner Johnston moved to recommend the Council accept the Northwest County Recycled Water Strategic Plan Report. Vice Chair Forssell seconded the motion. The motion carried 6-0 with Chair Danaher, Vice Chair Forssell and Commissioners Jackson, Johnston, Segal, and Smith voting yes, and Commissioner Scharff absent.

ITEM 2: ACTION: Staff Recommends that the Utilities Advisory Commission (UAC) Recommend the Council Adopt an Amendment to the Carbon Neutral Plan.

Jonathan Abendschein, Assistant Director of Resource Management, recalled that the UAC has discussed hourly accounting for evaluating the carbon content of the Electric Supply Portfolio. Staff will present a proposal to memorialize the policy. The item could be considered as having two primary components: choosing whether or not to amend the Carbon Neutral Plan to move to hourly accounting, and discussing the exchange of California renewables for out-of-state renewables and using the funds for a variety of carbon-reducing activities. He recommended the UAC focus on the first component and consider the second if it resolves the first component.

Chair Danaher noted one policy issue is the sale of excess renewables. The UAC has reached consensus that excess resources should be sold to capture the economic benefit. The discussion should address a definition of excess and whether to fill a shortfall in accounting with a more costly or less costly approach.

Jim Stack, Senior Resource Planner, reported the two major changes staff proposes are (1) to move from an annual carbon accounting methodology to one based on hourly average emissions factors and (2) to permit the use of Renewable Power Supply (RPS)-eligible, unbundled RECs (Renewable Energy Certificates), also known as Bucket 3 RECs, to neutralize any residual emissions resulting from the change in carbon accounting methodology. The cost impact is relatively small at approximately \$150,000 per year. Staff proposes these changes because the grid has changed dramatically since 2013; the emissions intensity of grid electricity varies dramatically by hour and season; and periods of surplus energy generally align with periods when electricity on the grid is relatively clean. The community, organizations, and regulators have raised questions of whether the City of Palo Alto Utilities (CPAU) can credibly and accurately claim to be a carbon neutral utility on the basis of an annual accounting approach. Shifting to an hourly accounting framework will provide additional credibility to CPAU's claim to be a carbon-neutral utility. Additional community engagement on the proposed changes may be needed. Under Alternative 1, the UAC would adopt hourly accounting without the use of Bucket 3 RECs, in which case a certain amount of surplus supplies would need to be maintained. Alternative 1 would save approximately \$1.7 million per year over ten years. Under Alternative 2, the UAC would adopt hourly accounting with the use of Bucket 3 RECs. Alternative 2 would save an additional \$500,000-\$600,000 per year. Staff recommends Alternative 2. Alternative 3 is to retain the annual accounting approach. In this case, staff sees no reason to maintain any of the surplus supply. Alternative 3 would save approximately \$2.4 million per year total (approximately \$100,000 more than Alternative 2).

Chair Danaher clarified that the \$2.4 million savings is actually the earnings from the sale of surplus RECs. The cost of offsetting hourly accounting with Bucket 1 RECs is \$700,000. The cost of offsetting hourly accounting with Bucket 3 RECs is \$100,000. Stack confirmed this understanding.

Stack continued the presentation, stating Alternative 4 is business as usual with the UAC reconsidering hourly accounting in a year. Staff would sell surplus Bucket 1 supplies down to load in 2020; report emission totals under an hourly accounting framework; and consider using the hourly accounting framework to evaluate supply and demand resources.

In response to Vice Chair Forssell's request for additional information about using hourly accounting internally to evaluate supply and demand resources, Abendschein explained that staff evaluates the cost of energy efficiency programs against the cost of buying new electric supply. This concept could also be applied to carbon. Staff may be able to use hourly accounting for carbon to evaluate demand-side measures and supply resources to determine the dollars-per-ton of carbon savings for each measure. If the UAC chooses not to adopt hourly accounting, staff will continue to explore internal uses of hourly accounting. Under the hourly accounting methodology, a supply resource that generates a lot of energy in the summer hours would have a lower carbon impact than a resource that generates the same amount of energy in off-season periods. Two resources that do not compare favorably on price per kWh may compare favorably in dollars-per-ton savings. Stack added that staff does not currently evaluate supply resources in terms of dollars per ton of carbon. With this concept, staff could look at grid emissions that are avoided by bringing new supply resources online.

In reply to Commissioner Jackson's query regarding the severability of the two issues (the adoption of hourly accounting and the use of Bucket 3 RECs for compliance), Stack advised that the two issues are independent, and a decision on the first component will not affect a decision on the second component.

In answer to Commissioner Johnston's comparison of the options in the presentation and in the staff report, Stack indicated Option A corresponds to Alternative 1, Option B to Alternative 2, and Option C to Alternative 2a about additional swapping.

Vice Chair Forssell related that she is inclined to support hourly accounting because it is a more accurate reflection of carbon emissions. CPAU can make the biggest difference in the City's carbon footprint by obtaining long-term contracts for carbon-free energy. She expressed concern that CPAU has taken on more and more solar power when it is not clear that solar helps the grid. She expressed interest in Alternative 4c

shown in the presentation (the use of hourly accounting for internal decision making), but any of the alternatives are acceptable if they drill down on Alternative 4c and have the most impact.

Commissioner Segal remarked that hourly accounting information should be disclosed because ratepayers have misperceptions about it and may make different decisions if they know their decisions will have an impact.

Bret Andersen, Carbon Free Palo Alto, remarked that using hourly accounting to drive decisions about supply purchases and demand management will reduce local greenhouse gas emissions. The definition of carbon neutrality is directedly contracted renewable power in California, which may be Bucket 1 RECs. The real action is to have 100-percent renewable contracts that cover power needs. If one is convinced that a Bucket 1 REC is the same as a Bucket 3 REC, then a lot of money is available. Carbon Free Palo Alto proposes staff include a social cost of carbon in decision-making and engage the community regarding Bucket 3 RECs. Moving to hourly accounting would be great.

Chair Danaher indicated under hourly accounting, residual emissions will have to be covered with \$700,000 of the \$2.4 million or with the purchase of Bucket 3 RECs at a cost of \$100,000. Purchasing Bucket 3 RECs has some benefit.

In answer to Commissioner Jackson's query regarding adopting Alternatives 1 or 2 (the adoption of hourly accounting with and without Bucket 3 RECs for the electric portfolio) and pursuing Alternative 4c at the same time, Stack indicated the UAC could do that. Chair Danaher noted staff is already working on Alternative 4c.

Commissioner Johnston agreed that adopting hourly accounting is logical because it would provide a more accurate picture of carbon and the energy portfolio.

Commissioner Jackson commented that adopting hourly accounting and incurring a cost of \$100,000 through Alternative 2 is acceptable.

Stack presented part 2 of the item. Option 1 is the sale of some surplus renewables, which will generate \$1.7 million per year in savings. Option 2 is the sale of all surplus renewables and the purchase of a small amount of Bucket 3 RECs, which will generate \$2.3 million in savings. Option 3 is the sale of all surplus renewables and a trade of in-state renewables for out-of-state renewables, which will generate \$3.3 million in savings. However, the RPS level will decrease to 50 percent, 45 percent, and 39 percent for Option 1, Option 2, and Option 3 respectively. The emissions intensity, using hourly accounting, will be 0 for Option 1, 42 for Option 2, and 131 for Option 3. Emissions intensity for Option 2 would be 0 with the purchase of unbundled RECs. The emissions intensity shown on the Power Content Label (PCL) will be 10, 9, and 65 for Options 1-3 respectively.

In answer to Commissioner Jackson's question regarding the total savings, Stack indicated Option 3 would generate about \$37 million, Option 2 about \$25 million, and Option 1 about \$18 million.

Vice Chair Forssell noted the retail rate impact would be a 2-percent rate savings when rate increases over the past few years have been 4-9 percent. Abendschein related that staff equates a \$1.2 million per year cost increase with a 1-percent rate increase.

Stack further reported the emissions intensity shown on the PCL would be a small number for each option, but the numbers for the options would be considerably less than the grid average. Next steps include Council approval and community engagement.

In reply to Commissioner Jackson's inquiry about use of the savings, Abendschein advised that savings may be directed to carbon-reducing activities such as electric vehicle (EV) charging, promoting EVs, building

electrification, and demand response or flexible loads. Chair Danaher added that savings may be used to purchase energy storage for the grid.

Commissioner Johnston did not favor the concept of selling all surplus renewables because it feels like CPAU is taking the minimum action to comply with RPS. With respect to Options 1 and 2, he expressed difficulty in understanding the difference between the environmental qualities of Bucket 1 and Bucket 3 RECs. He would feel better if the Option 3 savings would support a program that led to further carbon neutrality of the community. Abendschein advised that staff could return with guidelines for use of that set of savings.

Commissioner Jackson commented that after learning about Bucket 3 RECs, he could consider them rather than dismiss them out of hand. The concept should be marketed as a \$37 million program to electrify and green Palo Alto that is funded by the use of Bucket 3 RECs.

Commissioner Smith added that this is a substantial amount of money that can be used to benefit the community. He preferred allocating funds to programs that electrify California. If the utility moves to hourly accounting, it should capture the savings and use it for the community.

Vice Chair Forssell recalled a discussion of hourly accounting showing the utility to be browner than anticipated and the need to purchase RECs to offset the carbon emissions. She did not understand how switching accounting and purchasing RECs would save money. Chair Danaher explained that the utility has approximately \$2.4 million in surplus that can be sold. Vice Chair Forssell asked if banked RECs would be sold. Stack clarified that 10 percent of supply is surplus to the load and can be sold. The surplus is worth about \$2.4 million in savings. Under hourly accounting, the utility would purchase some number of RECs to cover residual emissions. If Bucket 1 RECs are purchased, the utility has to pay \$700,000 to cover the emissions. The \$2.4 million savings less the \$700,000 purchase results in a \$1.7 million savings. Vice Chair Forssell stated excess RECs would be sold rather than banked.

Commissioner Segal indicated the difference between Bucket 1 and Bucket 3 RECs seems to be local carbon savings versus carbon savings elsewhere, but the amount of carbon savings is equal. Stack advised that staff held that opinion, even though it is not widely held in the industry. Abendschein added that the exchange of a California REC for an out-of-state REC is a wash with respect to carbon. The discussion of Bucket 3 RECs often occurs in the context of requiring local agencies and utilities within California to build more renewable energy rather than purchasing out-of-state RECs. If these agencies are able to buy lower cost out of state RECs from existing renewable resources to fulfill their mandates, less new renewable energy will be built in California. That critique is not applicable to CPAU. CPAU has helped build new renewable energy sources in California with enough output to fulfill any mandate currently in effect or that is scheduled to come into effect in the future, and does not plan to release its contracts. Staff does not believe these short-term exchanges of California for out of state renewables will have a carbon impact; although, it does have a public perception impact.

In reply to Chair Danaher's question about Option 3, Stack explained that to obtain the Bucket 1 REC premium, the REC has to be sold with the energy. The purchase of an unbundled REC would have unspecified power. Chair Danaher advised that the UAC seems to support hourly accounting as being more honest. Covering residual emissions with Bucket 1 or Bucket 3 RECs would cost \$100,000 or \$700,000. The Council would be more likely to support moving to hourly accounting if the extra cost is covered with Bucket 3 RECs and CPAU continues to produce sufficient power to cover the load under the annual accounting basis. The more difficult and controversial decision is whether to sell to the RPS level.

Vice Chair Forssell favored moving conservatively and slowly. She supported Option 1, hourly accounting without Bucket 3 RECs. More aggressive actions can be taken in the future with an understanding of the use of savings and the programs they can fund.

Council Member Cormack commented that the way the information is presented to the Finance Committee will be important. The Council may find the nuances difficult to absorb and consequently focus on the dollars. The presentation will be important to prevent the discussion from focusing on finances alone.

Chair Danaher noted consensus for hourly accounting and inquired whether Commissioners support the sale of \$2.4 million in surplus and purchase of \$100,000 of Bucket 3 RECs or the sale of \$1.7 million in surplus and not use Bucket 3 RECs.

Commissioner Smith supported Column 2 (hourly accounting using Bucket 3 RECs).

Commissioner Johnston supported Column 1 (hourly accounting using Bucket 1 RECs). If that proves feasible, Bucket 3 RECs can be reconsidered.

Commissioner Jackson supported Column 2 (hourly accounting using Bucket 3 RECs).

Commissioner Segal supported Column 2 (hourly accounting using Bucket 3 RECs).

Vice Chair Forssell supported Column 1 (hourly accounting using Bucket 1 RECs).

Chair Danaher supported hourly accounting using Bucket 3 RECs for the marginal amount.

Abendschein reported staff will sell any surplus above the 104.5-percent level during the year regardless of this action.

Chair Danaher requested the next staff report include an update regarding the charging program.

ACTION: A straw poll was taken to continue the item to the March meeting. The motion carried 6-0 with Chair Danaher, Vice Chair Forssell and Commissioners Jackson, Johnston, Segal, and Smith voting yes, and Commissioner Scharff absent. By acclamation, the UAC continued the item to the March meeting.

ITEM 3: DISCUSSION: Presentation of the Utilities 2019 Year in Review.

Catherine Elvert, Communications Manager, highlighted 2019 accomplishments including Upgrade Downtown, Stanford Hospital expansion, Colorado Substation upgrades, installation of new customer service lines, leak repairs, reducing sanitary sewer overflows, flushing miles of sewer mains, Water Reuse Agreement with Valley Water and the City of Mountain View, customer survey regarding distributed energy resources and energy efficiency and resulting programs, continued use of the Strategic Plan and the Sustainability and Climate Action Plan, an Energy Reach Code, Municipal Services Center open house, HP solar project, home electrification expo, Great Race for Saving Water and Earth Day Festival, EV ride and drive events, and resiliency workshop. CPAU received the National Energy Innovator Award and the Smart Energy Provider Designation from APPA and the Treeline USA Award. Innovations include the automated metering infrastructure (AMI) project, MyCPAU, and mobile workforce applications.

ACTION: None.

ITEM 4: DISCUSSION: Presentation Looking Forward into the 2020 Year to Come.

Catherine Elvert, Communications Manager, highlighted 2020 priorities, goals, and plans, including MyCPAU, expansion of the fiber network, Phase II of AMI, meter survey, SAP upgrades, new home energy and water reports, update of the Water Integrated Resource Plan and the Urban Water Management Plan, review of the Western Area Power Administration contract, evaluation of RPS options, update of the Sustainability and Climate Action Plan, evaluation of the impact of electrification on the gas and electric utilities, wastewater cost of service analysis, water main replacements, rehabilitation of the Mayfield and Corte Madera Reservoirs, replacement of ABS services, gas and sewer line safety inspections, replacement of wastewater mains in the Charleston-Meadows neighborhood, a new GIS system, substation upgrades, wildfire mitigation

practices, recruitment and succession planning, monitoring of legislative actions, and continued application of the Strategic Plan.

ACTION: None

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

Commissioner Segal requested an update regarding findings for the fatal accident involving a City employee and information about the permitting of electrification projects. Jonathan Abendschein, Assistant Director of Resource Management, advised that staff discusses permitting issues with Development Services and engineers. Resolution of issues may be slow due to limited staff and competing priorities. Staff is working on resolving issues related to electrical panel upgrades and energy storage systems.

In reply to Commissioner Jackson's inquiry regarding an electric-only rate plan, Abendschein indicated the billing system and Proposition 26 limitations on rate design are challenges to implementation of an electric-only rate. Commissioner Jackson shared questions regarding AMI and asked that they be addressed at an appropriate time.

Commissioner Johnston wanted to discuss the resiliency workshop prior to discussing a second transmission line.

Vice Chair Forssell wished to better understand the outages profile as part of the educational update.

Chair Danaher requested a discussion of RPS and Bucket 3 RECs in the next several months, an update on the charging network, a report about vehicle-to-home discharging, and a review of the AMI schedule.

ACTION: None

NEXT SCHEDULED MEETING: March 5, 2020

Meeting adjourned at 9:15 p.m.

Respectfully Submitted
Tabatha Boatwright
City of Palo Alto Utilities