

DOCUMENTS IN THIS PACKET INCLUDE:

LETTERS FROM CITIZENS TO THE  
UTILITIES ADVISORY COMMISSION

John Kelley  
555 Bryant St., No. 714  
Palo Alto, CA 94301  
[jkelly@399innovation.com](mailto:jkelly@399innovation.com)  
(650) 444-2237

September 1, 2021

**Via Email: UAC@cityofpaloalto.org**

Honorable Lisa Forssell, Chair  
Honorable Lauren Segal, Vice Chair  
Honorable Commissioners  
City of Palo Alto  
250 Hamilton Avenue  
Palo Alto, CA 94301

**Re: September 1, 2021, Special Meeting, Oral Communications: I urge you to consider a few key principles that should be applied to update Palo Alto's utilities policies to create more housing and confront global warming.**

Dear Chair Forssell, Vice Chair Segal, and Commissioners,

Insufficient housing and potentially catastrophic global warming are dual demons ravaging our city and state, our nation and planet. To know that we must build more homes for people in need and stop burning the planet, one need only: check rental listings; watch parents raising their children in RVs; notice a homeless person trying to sleep in an underpass; stand in a backyard on the wrong day and try to inhale deeply; glance at a fiery-red morning sun or a smoky-orange evening moon; or read about the apocalyptic declines of the Sierra snowpack or Lake Mead's water level. I will briefly sketch some of the relationships between homes and sustainability, explain why infill housing may be a particularly vital sustainability strategy in Palo Alto, discuss the need for Palo Alto to act now to update its utilities policies, and propose several key principles that should be applied in updating Palo Alto's utilities policies to build more homes and reduce our greenhouse gas (GHG) pollution.

California's current economy joins responsible housing production and climate action policies together. The California Air Resources Board (CARB), California's lead agency for combatting global warming, found in its [\*2018 Progress Report, California's Sustainable Communities and Climate Protection\*](#) that (a) "California will not achieve the necessary greenhouse gas emissions reductions to meet mandates for 2030 and beyond without significant changes to how communities and transportation systems are planned, funded, and built..." and (b) "[b]uilding compact neighborhoods where people of all incomes live within safe walking or cycling distance of daily errands could have significant climate benefits." (See pgs. 5 and 49, respectively.) By implication, these findings call for greater infill housing across the state.

A 2018 study, Jones, C.M. *et al.* "[\*Carbon Footprint Planning: Quantifying Local and State Mitigation Opportunities for 700 California Cities\*](#)," went further by quantifying how urban infill strategies might reduce GHG pollution arising from transportation, energy, food, goods, and services across California, and illustrated the beneficial effects of infill strategies in communities with low income-adjusted GHG pollution:

Using this approach, more locations become good candidates for urban infill, including many high-income neighborhoods in urban cores, such as most of San Francisco, and the wealthy hillside of the East Bay. While these neighborhoods have higher than average carbon footprints, they have lower than average carbon footprints for their income level. Low carbon footprint cities that make housing available at all income levels help share

the burden of meeting housing demand, while lessening the impact on the climate across the population. [*Urban Planning*, 2018, Volume 3, Issue 2, Pages 35–51, at p. 43.]

Figure 5, at p. 45, of that study illustrated the relative importance of urban infill strategies in some more affluent communities, such as Berkeley:

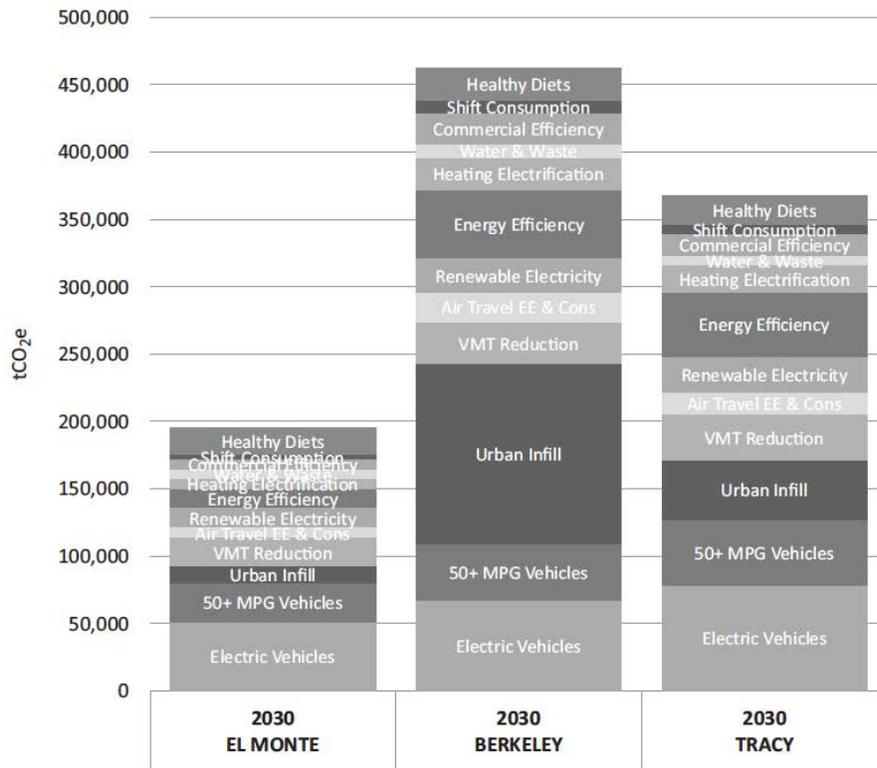


Figure 5. Carbon footprint abatement opportunities for selected cities with ~100,000 population.

We must do many things to challenge and to overcome the demonic twins of limited housing and anthropogenic global warming, and we must act now. The release in early August of IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* underscored --- as if any further notice from the IPCC were necessary --- the magnitude of the challenges posed by global warming and the rapidity with which its effects will be felt even more severely across the globe, for generations to come. A few weeks later, the California Legislature’s **approval** of the Housing Opportunity and More Efficiency (HOME) Act, SB 9, signaled a possible new regulatory pathway --- if that bill is signed into law --- for creating infill homes in California. This legislative action complemented 2019’s amendments to [Cal. Gov. C. 65852.2](#), which reformed our state’s accessory dwelling unit (ADU) laws. While Berkeley and Palo Alto differ in many important respects, there are reasons to believe that urban infill strategies may be particularly effective in further reducing GHG pollution in Palo Alto. Among other things, the CPAU’s prior actions in reducing GHG pollution from our electricity and natural gas systems make urban infill strategies relatively more salient. Given those prior achievements, the marginal GHG reduction benefits of building new, smaller homes, such as

ADUs and perhaps somewhat larger buildings, on underutilized parcels may be particularly great, while simultaneously enabling more people to live in more affordable housing in Palo Alto.

Reforming zoning laws is not sufficient, however, to realize such goals, because new homes, even smaller ones, require additional utilities services. It is in this context that the CPAU and the UAC should act with urgency to update utilities policies based upon the new realities of increased infill housing. The CPAU is in a unique position to act as “the only municipal utility in California that operates city-owned utility services that include electric, fiber optic, natural gas, water and wastewater services.” Greater infill housing creates greater demand for all such services (at least over time in the case of fiber optic services). The UAC also has a singular opportunity to effect municipal change as a valued and trusted advisor to the Palo Alto City Council (PACC). The UAC and CPAU have the opportunity to act now to facilitate building more homes in Palo Alto and to reduce our GHG pollution by facilitating the construction of additional infill housing.

Palo Alto’s utilities policies can and should be improved in many ways, and in future communications I will be more specific in providing examples. At present, I offer a few key principles whose application can help to increase infill housing production.

1. Utilities policies and practices should give homeowners and other property owners greater flexibility, because they will generally make reasonable decisions concerning their properties.

Existing homeowners who are also CPAU customers will likely build a sizeable portion, if not most, of new infill homes in Palo Alto through at least 2030. Recent statistics show increasing construction of ADUs in Palo Alto. In addition, if SB 9 becomes law, its owner occupancy requirements will probably result in homeowners leading the way towards building other types of infill housing. Because most homeowners and many other property owners have lived in Palo Alto for some time, utilities policies should generally presume that they know and value our community and its values, and that they will make reasonable decisions concerning their properties. The UAC and the CPAU should befriend those seeking to build infill housing in Palo Alto. When in doubt, offer owners choices, rather than dictating that utilities services be provided only in one way. Utilities policies should encourage and support building new homes in our community, and utilities practices should not impede the creation of ADUs or other new forms of infill housing. Homeowners and others are likely to have the best knowledge of what types of utility services are most appropriate on their properties and to act reasonably.

2. The CPAU should offer both universal service and universal access, refusing to discriminate between households.

Palo Alto should not discriminate between households in providing utilities services. We should eschew creating two *de facto* classes of residential customers, some who receive “first class” service, and others who receive only an inferior grade. For example, if homeowners want to build accessory dwelling units, they should be allowed to choose whether or not those ADUs will have some or all of their own utilities. Failing to grant homeowners such flexibility will forge economic disincentives for electrification, because single electrical service for multiple, fully-electric homes, particularly those with EV chargers, on one lot can be prohibitively expensive or logistically impractical. Universal service principles require equal treatment homes. Furthermore, it would make no sense for the CPAU to move towards advanced metering or billing systems that might never apply to a significant portion of the new homes being built in Palo Alto. In much the same way, universal access should be a fundamental principle for our utilities services. Homeowners should be treated the same whether they live on a broad avenue or a narrow alley. The CPAU should develop means of serving all households equitably throughout our city, whether citizens live in large houses, compact ADUs, or new forms of infill housing.

3. Capital expenditures for capacity upgrades and line extensions on public thoroughfares should be amortized system wide.

In general, system, trunk, and feeder costs should be borne by our utilities systems themselves, not by individual homeowners or other property owners. To the extent permitted by other laws, individual homeowners and others might be charged for certain connection costs. Should a new connection require capacity expansion, such as a transformer, or a line extension on a public way, such as an alley, those costs should be amortized across the entire system. Doing otherwise violates principles of universal service and universal access, discourages electrification and installation of EV chargers, and discriminates between homeowners.

4. Housing and climate action goals should be considered at every level of UAC and CPAU decision-making.

Whether in setting agendas, evaluating existing or proposed rules and regulations, setting budgets, allocating capital, choosing new service offerings, evaluating performance, assessing current staffing levels, or making other decisions, both the UAC and the CPAU should be increasingly sensitive to the problems of insufficient housing and global warming. A culture of concern for these problems should be adopted. It is not sufficient for our utilities system to respond to initiatives adopted formally by the PACC. Indeed, those within the CPAU should be encouraged not only to look actively and repeatedly for ways to elevate consideration of housing and climate action goals operationally, but also to advance new ideas for exploration within our municipal government and by the community generally. Building more infill housing and working to overcome global warming are vital goals for our city, and the UAC and the CPAU must be conscious of those goals in making all decisions.

5. Transparency with the public, and cooperation between Utilities, Development Services, and other departments should be encouraged and supported.

In applying the preceding principles, the CPAU should embrace higher-order principles of transparency and cooperation. The CPAU has access to considerable information that will be vital in promoting housing and reducing GHG pollution in Palo Alto. Some of that information has been made available to the public, but not all of it. (For example, it is not always clear which public thoroughfares are served by the CPAU.) Moreover, information may, in principle be available, but still expensive to obtain. Greater transparency with the public will be particularly helpful as utilities policies change and evolve. Simultaneously, greater cooperation between different departments should be promoted. New infill homes will not be built and major advances in further reducing Palo Alto's GHG pollution will not be achieved without active coordination between many of Palo Alto's different departments. The coordinated meetings between Utilities Director Dean Batchelor, Planning and Development Services Director Jonathan Lait, and others are a great start, but ongoing cooperation will be essential, particularly with the Public Works, Transportation, and Fire departments, to build all of the infill housing Palo Alto requires and to achieve all of the GHG pollution reductions we must make.

Thank you for considering these comments and proposed principles. I will apply them in particular contexts in future communications.

Respectfully submitted,  
John Kelley

**From:** [Dick Dworak](#)  
**To:** [UAC](#)  
**Subject:** Water & utility bills  
**Date:** Saturday, September 4, 2021 5:19:51 PM

---

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

---

Hello,

I just opened my monthly bill. We are in the midst of a severe water shortage likely to get worse with out much hope for 2022 as forecast, which I hardly need mention. To get the customers to better appreciate their usage would it not be far better to show water consumption in gallons, rather than seemingly small usage by showing water usage in CCF ? I am much more concerned about my water usage at close to 9000 galloons rather than the piddly 12 CCF.

R.G. Dworak  
727 Seneca Street  
Palo Alto, 94301-2233

P.S.. Why are we, when we have it to save, putting water into above ground “lakes” where the water can evaporate at a pretty high rate with our beautiful blue - except for smoke haze - skies. Why not make a great deal more use of underground aquifers or other types of underground water storage?

**From:** [Jeff Hoel](#)  
**To:** [Council, City](#)  
**Cc:** [Hoel, Jeff \(external\); UAC](#)  
**Subject:** AMI -- Smart Meters  
**Date:** Monday, October 4, 2021 1:31:25 PM

---

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

---

Council members,

I'd like to comment on Item 5 of your 10-04-21 agenda, which is about AMI (Advanced Metering Infrastructure), i.e., Smart Meters.

10-04-21 agenda (PDF pages 1-5) AND staff report (PDF pages 40-212)

<https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/city-council-agendas-minutes/2021/10-october/20211004/20211004pccsm-amended-linked.pdf>

I intended to comment earlier, but I didn't notice that a staff report was available until today. I apologize.

1. I think the item should not have been placed on the Consent Calendar. Council should have been allowed to discuss the issues raised by UAC on 07-07-21, when they considered AMI. Also, the staff report is huge, and considerably different from the staff report that UAC considered on 07-07-21.

2. The proposed AMI system will use a point-to-multipoint wireless network. I think this means that no smart meter device at a premises will transmit to the collector until it is interrogated by the collector.

- a. Water and gas meters will report data only twice per day, to conserve battery power. Does that mean that there could be a delay of up to 12 hours in reporting a leak? Or could the collector interrogate the meters more frequently, and the meter would respond (i.e., use battery power) only if a response is appropriate? Also, does this mean that "real-time" data for water and gas simply won't be available?
- b. At one time, electric meters were not going to have a battery for backup power during a power outage, but rather only a capacitor large enough for one "last-gasp" message. Is this consistent with approach of transmitting only when interrogated?

3. Radiation:

- a. I don't know that I'm personally affected by radiation from wireless devices. But I'd hate to find out the hard way. I think the City has chosen a networking technology (point-to-multipoint) that minimizes the radiation risk.
- b. The City's opt-out policy (see below, 5.f) seems more than fair. But it's not stated in the 07-07-21 staff report for UAC or the 10-04-21 staff report to Council.
- c. I'm unclear about the networking technology proposed for communicating between the electric meter and an in-home gadget for displaying real-time electric use. Is it turned off unless the customer is actively using the information?
- d. The 07-07-21 staff report didn't report signal strengths in microW/cm<sup>2</sup>, but rather in Watts for the whole radio.
- e. I suppose that people concerned about radiation would be more concerned about transmissions from the meters than transmissions from the collector (because the collector is a lot further away).

2. Privacy:

- a. I'm inclined to trust the City not to misappropriate information about my utilities uses.
- b. In other places, hackers have intercepted smart meter information being transmitted wirelessly. I don't know whether those places were using a different technology. During the 07-07-21 UAC meeting, staff said they were adhering to industry standards. But I don't know whether the other places were adhering to the same industry standards.

3. Safety:

- a. In other places, smart meters have started fires when they were misinstalled. I'm inclined to trust the

City not to do that.

b. The 07-07-21 staff report says SOME premises will get smart electric meters where power can be shut off remotely. Could hackers use that feature maliciously? WHICH premises will get these meters?

4. Pricing:

a. I'm inclined to believe that the City's plans for pricing electricity will be fair. Will CPAU give customers a choice of plans: either time-of-use (TOU) or not?

5. Other:

a. When there's an electric power outage, does the smart meter stop working until power is restored? In a previous staff report, staff proposed to use a meter that had only enough stored electric charge to make one "last-gasp" transmission to the central office. I think the current plan (point-to-multipoint network) is for the meter to transmit only when asked by the collector, which will be once every 15 minutes. That's incompatible with the "last-gasp" idea, I think.

b. What is the proposed data rate?

c. How flexibly can the meters be programmed?

d. Can the customer get real-time usage about water and gas. The 07-07-21 staff report (page 43) seems to say yes. Does this mean that these meters also have an (optional) Zigbee interface for doing that? Note that these meters must be especially frugal with consuming electric power because they're battery powered.

e. When PG&E first started using smart meters, some customers complained that they were billed for electricity they didn't use. I think the problem turned out to be that PG&E sometimes couldn't read the meters, and PG&E had software that would make up use data for billing purposes. (So, for example, the software said folks were using electricity during a power outage.) Hopefully, Palo Alto won't have this problem, or this "solution."

f. Opt-out: This FAQ (07-20-21) says:

<https://www.cityofpaloalto.org/Departments/Utilities/Customer-Service/Meter-Reading/Advanced-Metering-Infrastructure-and-Smart-Grid>

Q: "If I do not want an advanced meter in my home, can I opt out?" A: "Yes. The City Council will be deciding how customers will be able to opt-out, without having to pay a fee to cover manual meter reading and processing costs incurred by CPAU." I was surprised. Most utilities charge a fee. I don't know what Council will actually do, or when they will actually do it. I don't know if they've read the FAQ. (Incidentally, the Q says "in my home." I think it means "near my home.")

Thanks.

Jeff

-----  
Jeff Hoel  
731 Colorado Avenue  
Palo Alto, CA 94303  
-----

**From:** [UAC](#)  
**To:** [herb](#); [UAC](#)  
**Cc:** [Yuan, Dave](#)  
**Subject:** RE: October 6, 2021 UAC Meeting, Item #2: Fiber Backbone and Fiber Broadband Expansion  
**Date:** Tuesday, October 5, 2021 3:51:45 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image006.png](#)

---

Mr. Borock,

Thank you for bringing this to our attention. Slide 10 is not missing; I apologize, the slides were renumbered and unintentionally misnumbered.

As for the hyperlinks, those were meant to be placeholders until after the UAC meeting. Those links will be live after staff presents to the UAC.

I am sorry for any confusion or frustration this may have caused.



**TABATHA BOATWRIGHT**

Utilities Administrative Assistant  
City of Palo Alto Utilities Department  
250 Hamilton Ave | Palo Alto, CA 94301  
O: 650.329.2326 M: 408.966.0838  
E-mail: [Tabatha.Boatwright@cityofpaloalto.org](mailto:Tabatha.Boatwright@cityofpaloalto.org)  
[www.cityofpaloalto.org](http://www.cityofpaloalto.org)



---

**From:** herb <[herb\\_borock@hotmail.com](mailto:herb_borock@hotmail.com)>  
**Sent:** Tuesday, October 5, 2021 2:30 PM  
**To:** UAC <[UAC@cityofpaloalto.org](mailto:UAC@cityofpaloalto.org)>  
**Subject:** October 6, 2021 UAC Meeting, Item #2: Fiber Backbone and Fiber Broadband Expansion

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

---

Herb Borock  
P. O. Box 632  
Palo Alto, CA 94302

October 5, 2021

Utility Advisory Commission  
City of Palo Alto  
250 Hamilton Avenue

Palo Alto, CA 94301

**OCTOBER 6, 2021 UTILITY ADVISORY COMMISSION MEETING, AGENDA  
ITEM #2  
FIBER BACKBONE AND FIBER BROADBAND EXPANSION**

Dear Utility Advisory Commission:

Slide 3 (PDF Page 5 of 17) has links that do not work. Are they supposed to be operable?

Slide 10 (between PDF Pages 11 and 12 of 17) is missing. Is Slide 10 one of the three pages that are not numbered?

Thank you.

Herb Borock

**From:** [David Coale](#)  
**To:** [UAC](#); [Shikada, Ed](#); [Lait, Jonathan](#); [Hoyt, George](#); [Batchelor, Dean](#); [Singh, Tikan](#); [Filseth, Eric \(Internal\)](#)  
**Cc:** [Abendschein, Jonathan](#); [Burt, Patrick](#); [Cormack, Alison](#); [Gennady Sheyner](#)  
**Subject:** Comments on the Sept 1st UAC meeting  
**Date:** Tuesday, October 5, 2021 9:00:42 PM

---

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

---

Dear UAC, Staff and City Council

I am writing you to clear up some misinformation r.e. the Sept 1<sup>st</sup> UAC meeting and provide a clearer picture about permitting issues and solar inverters/installations. I was very disappointed to say the least, to hear misinformation and scare tactics used to answer Commissioners' questions, and in particular, about the AC disconnect and PV inverters. While this is unfortunately becoming more commonplace in national politics, I do not expect this from my municipal Utility where facts and productive collaboration should be the rule.

First off I would like to thank Commissioner Forssell for the extra time during my input on the permitting issue (item 1, Sept 1st). This is a complicated and technical issue and 3 minutes is not nearly enough time to address all the issues before the Commission.

The UAC deals with very technical topics and it is not always possible to have all the info at hand for all the various issues that come before the Commission. It is also not possible for the public to try to address these complex issues during the 3 minutes of public comment that are allowed; and comments after the public input period is closed, for any reason, are also not allowed by the public.

I will list my comments in chronological order and will be referring to the Zoom/YouTube recording of the meeting: <https://midpenmedia.org/utilities-advisory-commission-31-912021/> My verbal input to the UAC can be found at 9:15 in the video.

As director of Planning and Development Services Jonathan Lait mentioned, there are have been various reports on the permitting process in Palo Alto: UAC Staff Report, dated April 7, 2021 id-12032: <https://www.cityofpaloalto.org/files/assets/public/agendas-minutesreports/agendas-minutes/utilities-advisory-commission/archived-agenda-and-minutes/agendas-and-minutes-2021/04-07-2021-special/id-12032.pdf>

This report outlined many of the problems for permitting and inspections in Palo Alto. While the most recent report mentioned some of these items, it did not address some very important issues. The time taken for PV plus storage permitting and for the Palo Alto only requirements were left out. For clarification and better understanding I have listed the Palo Alto only requirements here:

- AC disconnect
- Two ground rods
- Torque test for panels and racking hardware
- Torque test for electrical connections

- Custom placards on the main service panel

The only requirement addressed in the meeting was that of the AC disconnect. Referring to the recording of the meeting, at 26:00 Commissioner Johnston asks about the AC disconnect and why is this required, and will it be continued?

In response, Director Batchelor said it is there “For the safety of our employees”. He goes on to say “There is no scientists facts... for this”. He said they are worried about potential back-feed that could come from an inverter and energize the line once the line is dead.

Here are the facts on this: The National Electric Code (NEC) requires that all inverters be listed to UL1741 which states that an inverter will not back feed the grid when the power is out. This must happen within 2 seconds. So when the power goes out, 2 seconds later all inverters will disconnect from the grid. In addition, in order to re-connect to the grid, the inverter will monitor the grid for three minutes to see that the proper voltage and frequency parameters are within grid specification before it will start producing power. UL1741 is over 20 years old and these requirements are in place specifically to protect line workers.

In addition to this, all newly installed PV systems are required to have what is called a Rapid Shutdown system where when activated, the PV array must be de-energized within 30 seconds. This will also stop any energy production and back feeding to the grid. This requirement was put in place to protect first responders.

Utility director Batchelor then states that the main meter can be pulled out to prevent the back-feeding to the grid and goes on to introduce a video that “We put together...” to show what could happen when pulling a meter as a means of disconnect. He then asks staff to present the video. The staff then presents a video and says (see minute 29 in the video), that “these are our electric folks working on a panel”. The video then shows dramatic images of an arc-fault event.

This video is in fact a video of electrical workers in Portugal and can be viewed in full here: <https://www.youtube.com/watch?v=Z3yKFLJpnhI> In the notes for this video there is no mention of the cause of the arc-flash.

The video that staff showed was carefully edited so that you could not see the fact that this was from Portugal and staff said twice that it was a Utility video.

This is perhaps the most disturbing thing for me. Why would staff go to such lengths to mislead the Commission on these issues? The question that this brings up for me is, what other items that come before the UAC are doctored and filled with misinformation? This is very disturbing and is unacceptable!

At 50:50 Commissioner Forssell asks about why can't we use other items besides the AC disconnect? Why don't they believe in UL1741? Staff addressed this and said that they need a visible disconnect and that the main breaker is not acceptable.

Commissioner Forssell asks if you can test the line to see if UL1741 does what it is supposed to do. Staff does not seem to understand the question.

Utility director Batchelor then says that no, you would have to pull the meter to test for this and that you can't test a breaker. The workers do the test line on the outside and they do test if

there's energy from the line itself, but at that point it could be dead; but you don't know if there's the potential that it could come back on when they are working on the line.

This is impossible, as all inverters connected to the grid are compliant with UL1741. This is why PG&E and the City of Santa Clara do not require AC disconnects. This is also why the fire department is OK with no AC disconnect.

Mr. Batchelor goes on to say this is an even greater problem with storage – again not true, as this equipment is also compliant with UL1741. This is like saying that a car could start up and drive away on its own, at any time once it has been turned off.

At this point I would like to outline just what happens with inspections in Palo Alto. It is interesting that no one outlined this before.

After completion of a solar installation in Palo Alto, the first inspection is by the Utilities - the Meter Shop. They come out and do two things:

<!--[if !supportLists]-->A) <!--[endif]-->The first check is to see if the inverter back feeds the grid when the power is out. They turn off the AC disconnect (could be the inverter breaker in the main service panel) and then check the voltage to make sure it is zero and the inverter is not back feeding the grid. So, yes, there is a very easy way to see if UL1741 is working and in fact, the Utility (Meter Shop) checks for this. Here is a video of this: <https://photos.app.goo.gl/HN3PcB9d1z6Anjry8>

<!--[if !supportLists]-->B) <!--[endif]-->Then they switch out the meter with a meter that can log kWh consumed and kWh produced as is required by the Utilities Net Energy Meter (NEM) 2 program. How do they safely swap out the meter? They turn off the main breaker and then pull the meter out. This same procedure could be used if the Utility does not trust UL1741 listed devices and if they don't even trust that their own people, who tested this. Here is a video of changing out the meter: <https://photos.app.goo.gl/CeWVTmugxzXNFp1e8>

This goes back to the arc-flash video. The procedure for changing out a meter, or pulling a meter for any reason, is to turn off the main breaker first so it is safe to do so. And that is in fact what Utilities (the Meter Shop) does.

Commissioner Forssell then goes on to ask if SolarApp+ includes the AC disconnect as part of it's solar design.

SolarApp+ does not include the AC disconnect because it is checking to see that designs comply with the NEC, and the NEC requires that all inverters are compliant with UL1741 and therefore an AC disconnect is not required.

Commissioner Forssell also asks if SolarApp+ has any way for additional requirements to be added or is this a new thing that Palo Alto is asking for?

Staff member Hoyt (Chief Building Official, Planning and Development Services) says there is a way to have additional requirements added and that he is working on this.

Note, SolarApp+ checks for NEC (National Electrical Code), California code and California

fire code compliance only and does not include any local requirements.

Council member Filseth asks why do we need a pre-application phase that takes two weeks? Good question. SolarApp+ would eliminate this.

Forssell: So the other Palo Alto only requirements will be going away?

Hoyt: I am not aware of any Palo Alto requirements that are not state code.

Let's go back and ask the question quite directly: Will Palo Alto still require the items listed in the reports as Palo Alto only? These are:

- Two ground rods
- Torque test for panels and racking hardware
- Torque test for electrical connections
- Custom placards on the main service panel

The last requirement is from the NEC but most jurisdictions don't require this. These custom placards might actually be more confusing to first responders than no placard at all.

These Palo Alto only requirements, whether listed in the code or not, are not solving any problems that our neighboring jurisdictions have. As such, there is no benefit to having these extra requirements, no value added, just that Palo Alto has a longer (more complete - must be better) checklist. It is these over-the-top requirements and inspections that is a large part of why contractors choose not to install in Palo Alto any more. They don't have to do these in any other jurisdictions and PV systems are no better off with these additional requirements.

In conclusion, it is quite disturbing to me to see Utility and Planning and Development Services Staff being indirect, evasive and potentially misleading when addressing the Commission. There are some serious problems with permitting and inspections in Palo Alto, to such an extent that these are a real impediment to solar installations and electrification projects. We need these projects to succeed in order to address the City's decarbonization goals. We cannot have residents abandoning their projects or contractors fleeing the city because it is too difficult to get work done here. We need all departments to work together in good faith to make headway on electrification to combat the very serious crisis that our generation and future generations are facing.

Sincerely,

David Coale

467 Gary Court  
Palo Alto, CA 94306  
[ccomeyjp@yahoo.com](mailto:ccomeyjp@yahoo.com)  
650-283-6315

October 5, 2022

Via Email: [UAC@cityofpaloalto.org](mailto:UAC@cityofpaloalto.org)

Hon. Lisa Forssell, Chair  
Hon. Lauren Segal, Vice Chair  
Honorable Commissioners  
Hon. Eric Filseth, UAC City Council Liaison  
Mr. Dean Batchelor, UAC Staff Liaison  
250 Hamilton Ave.  
City of Palo Alto, CA 94301

Re: 4190 Willmar Power Box Connection / Street Excavation Costs

Ladies and Gentlemen:

I am a long-time Palo Alto homeowner and taxpayer, having resided here with my wife Judith and three boys initially from 1992-1994, and again (following postings to Tokyo and then Shanghai relating to my work) since 2010.

I write to inform you of an issue that has arisen in connection with a remodeling project that we are in the final stages of completing. The project involves a single family home that we own located at 4190 Willmar Drive, just west of Gunn High School off Arastradero in the Green Acres neighborhood. The house was built in 1953 and we purchased it in 1992. Since our boys are now living on their own (in the case of our older two sons) or in college (our youngest), Judith and I plan to downsize from our current mid-town home and move back to the Willmar property once the project is finished.

In the process of initiating power upgrades to the house to accommodate standard 200 amp service, we learned that - unlike the other homes on our street - the in-ground power box (or "draw box") where the home's in-ground power line connects to the City grid is located *not* in our own front yard or front sidewalk, as would be typical, but rather in front of the home across from us (!) (4189 Willmar).

Unbeknownst to us when we began the project (or indeed when we bought the house), aging in-ground conduit lines run from the draw box located in front of 4189 Willmar, across the street, underground across the street to our property and underground across our yard to the fuse box at the side of our house.

This very odd and unique placement of the draw box that we would otherwise rely on for our power in front of a neighbor's home across the street (and omission of

installation of a box on or in front of our own property) is the result of an internal decision taken by the City many years ago that we had no knowledge of or input on.

Based on email exchanges and phone discussions that I had during August and September with CPA Utilities Staff members Mr. Henry Nguyen and Mr. Tikan Singh (Mr. Nguyen's supervisor), we have been informed that for this project, City is requiring us to pay the cost of:

- Installing new 2-4" conduit lines to accommodate the updated / standard power capacity of the 4190 Willmar home,
- Installing a new 24"x36" in-ground draw box in front of our 4190 Willmar home, and
- *Excavating a trench across the street between our house and 4189 Willmar to lay the new conduit lines referenced above to connect from the "old" to the "new" draw box.*

(The City had initially wanted us to also pay to upgrade the 4189 Willmar property's own draw box, but following my inquiries fortunately on August 30 withdrew this demand.)

Based on several estimates I have received, the cost to dig a trench across Willmar Drive to lay the new conduit lines will be in the range of \$20,000-\$27,000.

We would be willing to bear a fair portion of the costs referenced above, namely to install the new power draw box on our property - notwithstanding the fact that a draw box should have been located on (or in the sidewalk in front of) our property to begin with, had the City followed its normal configuration protocols.

However, I respectfully submit that it is neither fair or reasonable to impose the significant cost of street excavation/trenching and replacement of under-the-public-way conduit lines, on us as the individual property owners. I say this because the necessity of having to dig up a public street to replace conduit lines to conform with City requirements for our project in the first place is the result of the City's own internal decision about a non-conforming draw box placement that was made many years ago, without our knowledge or involvement.

Instead, the appropriate treatment is for these costs to be borne by the City and amortized across the CPA Utilities system as a whole, since that system (including the anomalous draw box placement noted above) has been designed/configured by the City to begin with, and incorporates public thoroughfares like Willmar Drive which individual property owners do not and should not have to pay individually to maintain or repair.

Mr. Singh indicated to me by phone that the City would not pay these costs, would not reconsider its decision, and that any appeal from this position would have to be taken up with the City Council. On its merits as well as from a procedural standpoint in terms of a proper appeal avenue, the decision seems both incorrect and fundamentally unfair.

For these reasons, we respectfully request the UAC's support and input, so that CPA Utilities could promptly reconsider its decision and so that we would not have to pay the estimated \$20,000-\$27,000 cost to dig up a public street to lay new conduit to a draw box that should have been located on or in front of our property to begin with.

In closing, by way of further background and in the interest of full disclosure, I am a corporate partner in the Palo Alto office of Morrison & Foerster LLP. I have practiced law at Morrison & Foerster since 1991 and am grateful to count A.C. Johnston as a highly respected former colleague and friend. Before submitting this letter, I spoke briefly by phone with A.C. last week to explain our situation and understand the UAC's role in utilities related issues.

Thank you very much for your attention to the foregoing, and please contact me if you have any questions.

Very truly yours,

Chuck Comey

**From:** [herb](#)  
**To:** [UAC](#)  
**Subject:** October 6, 2021 UAC Meeting, Item #2: Fiber Backbone and Fiber Broadband Extension  
**Date:** Wednesday, October 6, 2021 4:53:48 PM

---

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

---

Herb Borock  
P. O. Box 632  
Palo Alto, CA 94302

October 6, 2021

Utilities Advisory Commission  
City of Palo Alto  
250 Hamilton Avenue  
Palo Alto, CA 94301

**OCTOBER 6, 2021 UTILITIES ADVISORY COMMISSION MEETING, AGENDA  
ITEM #2  
FIBER BACKBONE AND FIBER BROADBAND EXTENSION**

Dear Utilities Advisory Commission:

The Fiber Huts need to be placed in locations that are secure, centrally located, and safe from sea level rise and from liquefaction due to earthquakes.

The size of the Fiber Huts should be able to accommodate alternative system architecture.

The City does not have the skill set to be an Internet Service Provider or Network Operator. Instead, the City should own and control the fiber system and hire a Network Operator and Internet Service Provider that has a demonstrated ability to provide excellent customer service and to protect customer information.

**Fiber Huts**

Of the six potential fiber hut sites, only the sites at Fire Station No. 5 at 600 Arastradero Road and at the Police Department underground garage at 668 Ramona Street provide locations that are not at the edge of the City, that are not affected by sea level rise, and that are not affected by liquefaction from earthquakes.

The potential sites at (1) the Colorado Electric Substation at Colorado Avenue and West Bayshore Road and (2) the Palo Alto Animal Shelter at 3281 Bayshore Road are located in areas with a high risk of sea level and of liquefaction due to earthquakes.

The potential site at the Water Facility at 1955 Old Mill Road is at risk of liquefaction due to earthquakes because of its proximity to Matadero Creek.

The potential site at the Hale Well at 998 Palo Alto Avenue is at risk of liquefaction due to earthquakes because of its proximity to San Francisquito Creek.

All of those four sites are at the edge of the City and, therefore, are limited in the directions that fiber can be distributed. (The Old Page Mill site, however, is close to the 200 Palo Alto homes along Los Trancos Road and upper Page Mill Road.)

The proposed size of the fiber huts intended to serve 10,000 - 15,000 customers is smaller than the fiber hut size Google first proposed when it was considering limiting each hut to 10,000 customers.

The proposed fiber hut size is 11 feet by 20 feet.

In August 2014, Google planned for fiber huts that would be 12 feet wide, 28 feet long, and 10 feet high for 10,000 customers.

Google later decided to build fiber huts for 20,000 customers. I have not had the opportunity to review the Google plans approved by the cities of San Jose and Santa Clara to verify the final size of Google's fiber huts.

No decision has been made about the architecture of the fiber system.

Does the size of each Fiber Hut provide the opportunity to serve 10,000 customers for a Passive Optical Network (PON); a PON that starts with or can be upgraded with Wave Division Multiplexing; an Active Ethernet Network with opto-electronics in the network; and an Active Ethernet Network with opto-electronics in the fiber hut instead of in the network?

Or does the size of each Fiber Hut assume a particular system architecture?

### **Internet Service Provider and Network Operator**

The City's Commercial Dark Fiber Network staff that serves a small number of customers requires different skill sets than a citywide fiber network where all residences and businesses are potential customers.

A City Fiber to the Premises Network that competes with existing fiber companies for customers requires different skill sets than the electric, gas, water, and wastewater utilities that operate monopolies.

It is important that the City own and control the proposed fiber network, but that does not mean the City needs to be, or should the Network Operator or Internet Service Provider.

The City should hire a Network Operator that could be an Internet Service Provider that satisfies qualifications set by the City.

The City's payment to the chosen Network Operator and Internet Service Provider can be unbundled so that any Internet Service Provider can offer services on the network.

Thank you for your consideration of these comments.

Sincerely,

Herb Borock