

From: [RICH STIEBEL](#)
To: [Council, City](#)
Subject: Vote NO on Smart Meters Tonight 101821o
Date: Sunday, October 17, 2021 6:52:37 PM

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

The Palo Alto Weekly published an article Friday saying that the PA council will vote on approving an \$18 million contract Monday night to install “smart-meters” in all PA residences. That’s too much money and too technical a project to be approved without the details being given to the public who will be affected. PA residents should be invited to give their input.

If approved, the Utility Dept. would install three low-power transmitters on each residence, one each on the electric, water, and gas meters. Have these device been Underwriters Laboratories approved?

The public needs to know on which frequencies these devices will transmit, how many harmonics they will generate what spurious signals and at what levels they may be emitted. What is the repair history of the model and type of transmitter system proposed? Where else has this model been installed and what were the long-term repair results for this transmitter assembly? This proposal means hundreds of transmitters operating, in a high-rise condo/apartment building, thousands in each neighborhood.

In addition, the public needs information on the 5 network poles and 10 collector radios that communicate with these home transmitters. To communicate with homes, these devices require transmitters also.

Palo Altans use many RF devices, such as cordless phones, CERT FRS & MURS radios, Wi-Fi, baby monitors, amateur radios, garage and car door openers, motion detectors security systems, DirectTV systems, etc. How much interference will these devices receive?

Evaluating one smart-meter transmitter is not sufficient. We need to see the data on a mesh network of hundreds of these transmitters operating simultaneously that shows no interference to any of the above devices.

The concept of remote monitoring is a good idea, but the use of fiber optics to report the data would be better than an RF system.

Rich Stiebel
840 Talisman Drive
Palo Alto, CA 94303

From: [herb](#)
To: [Council, City](#); [Clerk, City](#)
Subject: October 18, 2021 Council Meeting, Item #12: Smart Grid Technology Installation Project
Date: Friday, October 15, 2021 5:22:44 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 15, 2021

Palo Alto City Council
250 Hamilton Avenue
Palo Alto, CA 94301

**OCTOBER 18, 2021 CITY COUNCIL MEETING, AGENDA ITEM #12
SMART GRID TECHNOLOGY INFRASTRUCTURE PROJECT**

Dear City Council:

I urge you to reject the staff proposal.

Before you pay for a technical solution for a customer service you should first find out how the customer wants to use the service.

Instead, you are being presented with a proposal that is driven more by conversations between the Utilities Department and their selected vendor than by conversations between the City Council and the public.

The costs allocated to the electric, gas, and water utilities for the proposed project are based on each utility's revenue, when the California Constitution requires that fees paid by utility customers to pay for a service are prohibited from exceeding the reasonable cost of the service, unless you want to ask for a vote of the citizens to approve the fees.

A cost allocation would be better able to withstand a legal challenge if the parts of the project for each utility (such as meters) are charged separately to each utility, and the parts of the project that are used equally by all three utilities are charged based on the number of meters each utility has.

The desire for Smart Meters is for the electric utility. The gas and water utilities have simply been added onto the electric utility smart meter project. If there was no electric utility smart meter project, there would be no smart meter project for the other utilities.

Former Mayor Richard Rosenbaum told the Utilities Advisory Commission meeting of January 7, 2008 that it doesn't make sense for the electric utility to install smart meters, because the City's large commercial customers represent 85% of the electric load and those customers are already managing demand.

For a residential customer to benefit from smart meters, the customer needs real time information.

If a customer is informed of a spike in electric demand within two seconds of turning on an appliance the customer can react to that timely information.

If a customer is informed a day later of hourly data that is collected by the smart meter in 15-minute increments an hour at a time, the information from the smart meter is useless to the customer if the information is supposed to change customer behavior.

The amount of information that must be collected by the smart meter utility to be useful for changing customer behavior is magnitudes more than the data proposed to be collected by the project recommended by staff. How much space would be needed for the storage for a useful amount of information and how much would that storage cost?

Staff also notes that once constructed the project would be used to implement conservation.

Does that mean staff could decide to lower the voltage for the entire electric network, or for selected customers, or otherwise place restrictions on any of the three utilities? Do utility customers want the City to use an installed smart meter system to have the ability to those things? Do utility customers want the staff to have the ability to do those things?

Herb Borock

From: [Jeff Hoel](#)
To: [Council, City](#)
Cc: [Hoel, Jeff \(external\)](#); [UAC](#)
Subject: AMI -- Smart Meters -- Part 2
Date: Wednesday, October 13, 2021 2:50:54 PM

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

Council members,

Thanks to Council Members Kou, Tanaka, and Stone for pulling Item 5 -- which was about AMI (Advanced Metering Infrastructure) -- from the Consent Calendar of your 10-04-21 agenda. It's now Item 12 on your 10-18-21 agenda as a (non-consent) action item.

<https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/city-council-agendas-minutes/2021/10-october/20211018/20211018pccsm-linked.pdf>

The 10-04-21 video (0:15:13-0:19:29)

<https://midpenmedia.org/city-council-152-1042021/>

doesn't reveal why the item was pulled. (Although City Attorney Stump said that, in general, those who want to pull an item should explain to staff why they want to pull it.)

The staff report for this item (PDF pages 170-342 of the 10-18-21 agenda document) is PROBABLY the same as the 10-04-21 staff report for Item 5 (PDF pages 40-212 of the 10-04-21 agenda document)

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

except for the date (10-18-21 vs. 10-04-21, the ID number (# 13513 vs. # 13460), and the report type ("Actions Items" vs. "Consent Calendar"), and a paragraph (PDF page 172) indicating that Council Members Kou, Tanaka, and Stone pulled the item on 10-04-21. But I'd need a computerized file comparison app to know for sure. What I'd prefer is that each staff report be in its own file (with its own URL). And that, in this case, the 10-18-21 staff report be a very small document that just a) points to the 10-04-21 staff report, and b) explains that the 10-04-21 agenda item was pulled. That way, you'd know that the content hadn't changed.

The 10-18-21 staff report says (PDF page 174) that electric meters will (probably?) transmit once per hour, providing data about the four 15-minute intervals in the previous hour. But the customer can have "day-after" access to the information only on an hourly basis. Why not provide the 15-minute interval data? And why does it take so long to make it available? The same report says (PDF page 246) electric meters will have the "functionality" to provide residential customers with access to hourly data, but some commercial customers will have access to 15-minute interval data, and other commercial customers will have access to 5-minute interval data. Is this saying that what customers will get is different from the "functionality" of what they could get? Why does staff think some customers should have access to data at smaller intervals than others?

Same question for water meters and gas meters, with different details.

Thanks.

Jeff

Jeff Hoel

731 Colorado Avenue
Palo Alto, CA 94303

PS: Here's a copy of the message I sent on 10-04-21. I've taken the liberty of "fixing" the numbering scheme (highlighted in yellow).

----- Forwarded Message -----

From: Jeff Hoel <jeff_hoel@yahoo.com>
To: City Council <city.council@cityofpaloalto.org>
Cc: Jeff Hoel <jeff_hoel@yahoo.com>; UAC <uac@cityofpaloalto.org>
Sent: Monday, October 4, 2021, 01:31:22 PM PDT
Subject: AMI -- Smart Meters

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, **7.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/cm², 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).

4. 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.

5. 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?

6. 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?

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

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Thanks.

Jeff

Jeff Hoel
731 Colorado Avenue
Palo Alto, CA 94303

From: [Patrick Butler](#)
To: [Council, City](#)
Cc: [Karen White](#)
Subject: Please Pull AMI Meters from the Consent Agenda
Date: Monday, October 4, 2021 10:43:02 AM

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

Hon. Members of the Palo Alto City Council

My wife and I are opposed to the action item on tonight's consent agenda to spend 17.1 million dollars for so-called "smart" (AMI) meters and an additional 1.3 million dollars for yet another consultant and contractor to manage the project. As I remember the proposal mentions the saving of salaries for lower-paid meter readers yet also indicates that two new city employees and a supervisor would be hired to interface with the contractor.

The funds for this significant project would come from the "Electric Special Project Reserve", which I assume has come from millions of dollars in overcharges to customers from the grid price as we have watched our electric bills climb close to PG&E rates from the lower prices we paid just a few years ago.

I have lived with a conversion from analog to AMI meters in a home that also had natural gas for forced-air heating and AC, water heating and our stove, and the electric bill tripled. We tried to shift our usage to times when the rates were lower, but the bill just dropped to double what it was before the new meter was installed.

I presume that you know that the CA Public Utilities Commission provides for residents to opt out of these so-called "smart" meters and continue with a flat rate. There is a one-time charge of \$75 (\$10 for lower income) and then a monthly rate of \$10 (\$5 for low income) and *that monthly fee expires after three years*:

https://www.pge.com/en_US/residential/save-energy-money/analyze-your-usage/your-usage/view-and-share-your-data-with-smartmeter/smartmeter-updates/smart-meter-opt-out-program.page

We will certainly take that option to keep our meter, and most of our neighbors after discussing the subject indicated they will do so as well. You will need to keep some of those meter readers and might want to make sure you are not committed to buying all of those 30,076 meters.

If the city really wants to pull in some extra funds you might look at the rates charged for our commercial customers - they are lower than the residential rates and *the more you use the less you pay*.

There was a trial run of "smart" meters conducted by Palo Alto that ended in 2019. As I remember, there were numerous complaints from those that tried the program on a volunteer basis and who, I believe, were more inclined to make the sacrifice than those who you will try to force into the system.

I understand you want to push electric power usage to off-peak times but the only way to do this is by hurting customers and charging them significantly more for power when they want to use it. I would guess that this item is on the consent agenda as I have the feeling that this will not be a popular program when you switch on those new high rates in 2025.

Last, these new high electric rates will hit just as Palo Alto is planning to phase out the use of natural gas for residents (not the city or commercial customers) and, it is proposed, end the service in 2025. Too bad we just tore up all of our streets installing new gas lines. So, our residents will lose natural gas in a symbolic gesture to end global warming while paying huge new electric bills. Cold at night? Put on another sweater.

Respectfully,

Patrick Butler
Karen White

Palo Alto