

DOCUMENTS IN THIS PACKET INCLUDE:

LETTERS FROM CITIZENS TO THE
UTILITIES ADVISORY COMMISSION

From: [Daniel Dulitz](#)
To: [UAC](#)
Subject: streamlining permits for PV/ESS systems
Date: Wednesday, January 5, 2022 9:14:27 PM

You don't often get email from dulitz@gmail.com. [Learn why this is important](#)

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Chair Forssell, Vice-Chair Segal, Commissioners, and Staff,

At the January 5th UAC meeting, I was heartened to hear Director Lait's and Director Batchelor's discussion of efforts to streamline permits for electric generation, especially photovoltaic and inverter-based energy storage systems (PV/ESS). I think these streamlining efforts are several steps in the right direction. I especially wish to thank Director Lait for his directness in addressing the photos of existing permitted installations, as well as the Commissioners for their encouragement of the streamlining process.

Several Commissioners raised questions about Palo Alto's requirements, and I think Commissioners may have understood from the subsequent discussion that Palo Alto's requirements are, by and large, nothing beyond that required by State law and the California Electrical Code. I think that impression is mistaken.

In this letter, I wish to focus on the AC disconnect because that is what I know the most about. CPAU Rule 27 requires that generation systems install a lockable AC disconnect "switch" or comparable device. But what State law and the California Electrical Code require is a lockable "disconnecting means," so CPAU Rule 27 is more strict than the law.

PG&E and SCE allow (for certain residences) *the electrical meter itself* to be the required disconnecting means. If it is necessary to immediately disconnect the PV or ESS system from the grid, the customer is instructed to open their main service disconnect. If a utility technician needs to "lock" the disconnect, the technician comes to the customer premises and, in lieu of locking a switch, they physically remove the electrical meter, preventing any connection between the customer equipment (including generation system) and the utility grid.

So for the vast majority of the State of California, it is rare for a residential inverter installation to have an AC disconnect switch. But in one tiny part of the state at least one AC disconnect switch is mandatory for all PV/ESS installations. That is the CPAU service area.

I suggest that CPAU should adopt the same policy as the rest of the state.

I yet again suggest that Palo Alto engage in regular benchmarking of its electric regulations

against other jurisdictions within the state. In addition to PV/ESS regulations, [CPAU Engineering Standard DT-SS-U-1003](#) also imposes requirements on underground electric installations that are far stricter than CPUC General Order 128 requires. A subsequent letter will describe some of the ways these requirements increase costs for CPAU's own undergrounding projects.

References follow.

PG&E's Distribution Interconnection Handbook includes the section found at https://www.pge.com/pge_global/common/pdfs/services/building-and-renovation/greenbook-manual-online/060559.pdf which describes an "Exemption to the Disconnect Switch Installation Requirement:"

"Applicants with inverter-based generating systems that are supplied by PG&E single phase services up to 240 volts may be exempted from installing a disconnect switch, as determined by PG&E, if the meter panel that is interconnected with the generation source(s) meets all of the following conditions..."

SCE's Net Metering Handbook can be found at <https://www.sce.com/sites/default/files/inline-files/SCE%20NEM%20Handbook%20Version%208%20June%202020%20Final.pdf> . It describes in section 5.5.4 the conditions under which the meter may be used as a disconnecting means (see page 23).

Thank you for your consideration.

Daniel Dulitz
Resident since 2009
3995 Page Mill Road

From: [dbmoos1](#)
To: [UAC](#)
Subject: Fiber to the home
Date: Saturday, January 8, 2022 11:16:41 AM

[You don't often get email from dbmoos1@earthlink.net. Learn why this is important at <http://aka.ms/LearnAboutSenderIdentification>.]

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To the Utilities Commission City of Palo Alto;

I am looking forward to what I hope will be a fast roll out of Palo Alto's long discussed fiber to the home. I also hope, and urge the city to consider, that the first customers will be those (like myself and my neighbors) who have no fiber options currently available from commercial providers such as ATT. By focusing on those without such options the city will be minimizing direct competition with private companies during first phases, and, will be providing services first to those who have no alternative similar options. Many thanks for considering this input to the planning process.

Best regards;
Daniel Moos
925 Clara Drive

Sent from my iPhone

From: [Jeff Hoel](#)
To: [UAC](#)
Cc: [Hoel, Jeff \(external\)](#); [Council, City](#)
Subject: 02-02-22 UAC meeting, Item VII.2, community outreach re FTTP
Date: Sunday, January 30, 2022 2:30:38 PM

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Commissioners,

At your 02-02-22 meeting, you will consider item VII.2, which is about FTTP.

Agenda:

<https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/utilities-advisory-commission/archived-agenda-and-minutes/agendas-and-minutes-2022/02-02-2022/02-02-2022-uac-agenda.pdf>

The item is a "discussion" item, meaning that you can't vote. (Recall that Commissioner Scharff has said that ALL items that come before UAC should be action items, just in case commissioners want to vote.)

The staff report

<https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/utilities-advisory-commission/archived-agenda-and-minutes/agendas-and-minutes-2022/02-02-2022/02-02-2022-id-13939-2.pdf>

is extremely terse (2 pages).

1. The scope of the staff report is "Discussion and Update on the Communications and Community Engagement Efforts to Date and Upcoming Opportunities Planned." But can UAC ask about related things?

- * Funding sources
- * Architecture -- AE vs. PON
- * Hut locations
- * Infrastructure mapping results
- * Etc.

2. Is there -- or should there be -- an online "Table of Contents" that identifies all the relevant FTTP outreach documents? I don't feel confident that I have found them all, or that I can navigate to them when I want specific information.

3. The "Get Involved" map now (01-30-22 at 1:40 pm) has 195 participants and counting.

<https://fiber-palo-alto.hub.arcgis.com/pages/get-involved>

I'm guessing that there would be many more participants if it were easier to find.

4. I noticed that some of the online information (15 items so far) about FTTP is being put on the medium.com website.

(Google "site:medium.com/paloaltoconnect fiber" about 57 hits -- but 15 hits when I inquired further.)

I then noticed that the City has been using medium.com since 2019.

(Google "site:medium.com/paloaltoconnect" about 243 hits -- but 212 hits when I inquired further.)

I think this is not a good idea. If there were a Website Integrity Commission, I would ask it to look into this issue. If I search the City's website (cityofpaloalto.org), I should find everything there is. Also, how long does medium.com promise to keep the items online?

5. The City's list of utilities bill inserts

<https://www.cityofpaloalto.org/Departments/Utilities/Customer-Service/Utilities-Bill-Pay/Bill-Inserts>

has two items about FTTP:

5a. January 2022: "Market Research Survey"

https://www.cityofpaloalto.org/files/assets/public/utilities/bill-inserts/paloaltofiber_utility-bill-insert_jan22_web-final.pdf

It says, "Later this month, a unique survey link from Magellan Advisors, the City's Fiber project consultant, will be sent to your email inbox." Does "this month" mean "January 2022"? I haven't seen my survey link message from Magellan yet. Should I be concerned? (I received this insert in my utilities bill on 01-27-22.) How do people who pay their utilities bills online receive the equivalent of inserts? Does this mean that all utilities customers will be invited to participate in this market research survey? How is this survey different from the residential and business surveys Council directed staff to do? (If it's the same, fine.)

The staff report timeline predicts "survey launch" on March 14th (tentative). (At the 10-06-21 UAC meeting, Magellan Advisors consultant John Honker predicted (at 0:29:11 on this transcript) <https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/utilities-advisory-commission/archived-agenda-and-minutes/agendas-and-minutes-2021/11-03-2021-regular/november-03-2021-public-letters-to-uac.pdf>

that the surveys would launch in the November-December (2021) timeframe. Recall that community outreach was supposed to precede the surveys. Does staff now think that there will have been sufficient community outreach before March 14th?

5b. December 2022: "Connecting the Community Through Local Broadband"

https://www.cityofpaloalto.org/files/assets/public/utilities/bill-inserts/paloaltofiber_utility-bill-insert-nocropmarks_final.pdf

6. The report says there will be a Palo Alto Fiber Community Information Session on 02-24-22 at 5:30 pm <https://www.cityofpaloalto.org/Events-Directory/City-Manager/Palo-Alto-Fiber-Community-Information-Session>

* Will this be a special meeting of UAC? I think that would be a good idea, assuming at least four commissioners are willing to attend. (The Brown Act would require an agenda, minutes, etc.)

* Will the meeting be videotaped and posted on Midpen Media Center as a UAC meeting? That would be nice.

* People who "Click Here to Register for the Session" go here:

https://cityofpaloalto.zoom.us/webinar/register/WN_00Ch7_ckR3isA8esjbMgNQ

-- Do people have to register? (If it were a special UAC meeting, I'm guessing not.)

* Will the meeting for sure be virtual only? Or is in-person an option?

7. Why not get the Palo Alto Weekly to write a story about recent FTTP developments, including an invitation to participate?

8. Has staff done anything with social media? (I'm not plugged into social media, so I don't know.)

Thanks.

Jeff

Jeff Hoel
731 Colorado Avenue
Palo Alto, CA 94303

From: [Jeff Hoel](#)
To: [UAC](#)
Cc: [Hoel, Jeff \(external\): Council_City](#)
Subject: How many communities are served by municipal FTTP networks?
Date: Sunday, January 30, 2022 2:41:54 PM

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Commissioners,

The City's web page "Five Fiber Tips to Plug Into Palo Alto Fiber" says:
<https://medium.com/paloaltoconnect/five-fiber-tips-to-plug-into-palo-alto-fiber-3e38bfa3fd64>

"The City sees high-speed internet as a community-wide need that impacts residents, businesses, schools, hospitals, public safety, and the community's overall quality of life. To meet the needs of the community, the City is considering leveraging its existing fiber network and investment in new fiber to offer fast, reliable internet services to businesses and residents. By doing so, Palo Alto would be joining **more than 100 communities across 20 states** that offer high-speed internet to their citizens and businesses."

How did staff come up with this statistic?

MuniNetworks has a Community Broadband Map <https://muninetworks.org/communitymap> that says that there are "83 municipal networks serving 148 communities with a publicly owned FTTH citywide network," plus "260 communities with some publicly owned fiber service available to parts of the community (often a business district)" as of September 2021. (The map also shows "57 communities with a publicly owned cable network reaching most or all of the community," but let's not talk about that because "cable" isn't "high-speed" enough.)

I tried listing the cities marked on the map (see below the "#####" line) and found 156 communities shown as having citywide municipal FTTP and 258 communities shown as having partly-available municipal FTTP. That's a total of **414 communities**.

Also, these communities are spread across **40 states**. (30 states have at least one citywide municipal network.)

Note that I've also identified the 17 states that MuniNetworks says have some barriers to municipal FTTP.

Also, Broadband Communities Magazine used to keep track of municipal networks. In August of 2015 there were 165 (including 16 public-private partnerships) https://www.bbcmag.com/pub/doc/BBC_Aug15_CensusCommunityFiber.pdf

Thanks.

Jeff

Jeff Hoel
731 Colorado Avenue
Palo Alto, CA 94303

#####

Cities served by municipal FTTP networks. ("C" denotes citywide coverage. "P" denotes partial coverage.)

* ALABAMA (1) (Barrier)

Sylacauga -P-

* ALASKA (0)

* ARIZONA (0)

* ARKANSAS (1)

Clarksville -C-

* CALIFORNIA (8)

Beverly Hills -P-
Burbank -P-
Loma Linda -P-
Los Altos Hills -P- ----- it's actually a co-op
Santa Clara -P-
Santa Monica -P-
Shafter -P-
Vernon -C-

* COLORADO (9)

Breckenridge -P-

Cortez -P-
Estes Park -P-
Fort Collins ----- not yet listed
Glenwood Springs -P-
Longmont -C-
Loveland -P-
Meeker -C-
Montrose -P-
Rangely -C-

* CONNECTICUT (0)

* DELAWARE (0)

* FLORIDA (6) (Barrier)

Fort Pierce -P-
Gainesville -P-
Leesburg -P-
Ocala -P-
Palm Coast -P-
Palm Beach County -P-

* GEORGIA (19)

Appling -P-
Calhoun -P-
Cartersville -P-
Catoosa County -P-
Cohutta -C-
Columbia County -P-
Dalton -C-
Dublin -P-
Evans -P-
Flintstone -C-
Grovetown -P-
Harlem -P-
LaGrange -P-
Rossville -C-
Sandersville -P-
Tunnel Hill -C-
Varnell -C-
Whitfield County -P-
Wildwood -C-

* HAWAII (0)

* IDAHO (8)

Ammon -P-
Conkling Park -P-
Harrison -P-
Idaho Falls -P-
Plummer -P-
Rockford Bay -P-
Tensed -P-
Worley -P-

* ILLINOIS (11)

Batavia -P-
Champaign -P-
De Kalb County -P-
Evanston -P-
Highland -C-
La Salle County -P-
Mahomet -P-
Princeton -P-
Rochelle -P-
Rock Falls -P-
Urbana -P-

* INDIANA (4)

Anderson -P-
Auburn -C-
Garrett -P-
Lebanon -P-

* IOWA (14)

Bellevue -C-
Coon Rapids -C-
Harlan -C-
Indianola -C-
Lenox -C-
Manning -C-
Muscatine -C-
New Hampton -P-
Paullina -C-
Primghar -C-
Sanborn -C-
Spencer -C-
Vinton -C-
Waverly -C-

* KANSAS (3)

Chanute -P-
Ottawa - P-
White Cloud - P-

* KENTUCKY (11)

Artemus -P-
Barbourville -C-
Corinth -C-
Franklin - P-
Grant County - P-
Heidrick - C-
Owen County - P-
Owensboro -P-
Paducah -P-
Russellville -C-
Bowling Green -P-

* LOUISIANA (4) (Barrier)

Broussard -P-
Careno -P-
Lafayette -C-
Youngville -P-

* MAINE (3)

Baileyville -C-
Ilseboro -C-
Sanford -P-

* MARYLAND (1)

Westminster -C-

* MASSACHUSETTS (53)

Alford -P-
Ashfield -C-
Bourne -P-
Brewster -P-
Bridgewater -P-
Brockton -P-
Chatham -P-
Chesterfield -P-
Chickopee -P-
Colrain -P-
Concord -C-
Cummington -C-
Dennis -P-
East Bridgewater -P-
Eastham -P-
Fall River -P-
Falmouth -P-
Greenfield -P-
Halifax -P-
Harwich -P-
Holyoke -P-
Hyannis -P-
Leyden -C-
Leverett -C-
Marion -P-
Mashpee -P-

Mt. Washington	-C-
New Ashford	-C-
New Bedford	-P-
New Salem	-C-
Orleans	-P-
Osterville	-P-
Provincetown	-P-
Plainfield	-P-
Plymouth	-P-
Plympton	-P-
Otis	-C-
Rowe	-P-
Sagamore	-P-
Sandwich	-P-
Seekonk	-P-
Shutesbury	-C-
South Hadley	-P-
Swansea	-P-
Taunton	-P-
Truro	-P-
Wareham	-P-
Washington	-C-
Wellsfleet	-P-
Wendell	-C-
Westfield	-P-
Windsor	-P-
Yarmouth	-P-

* MICHIGAN (5) (Barrier)

Holland	-P-
Lyndon Township	-C-
Marshall	-C-
Sebewaing	-C-
Traverse City	-P-

* MINNESOTA (19) (Barrier)

Alexandria	-P-
Barnville	-P-
Bingham Lake	-C-
Brewster	-C-
Buffalo	-P-
Chaska	-P-
Eagan	-P-
Ely	-P-
Heron Lake	-C-
Jackson	-C-
Lakefield	-C-
Little Falls	-P-
Long Prairie	-P-
Monticello	-C-
Okabena	-C-
Pine City	-P-
Round Lake	-C-
Wilder	-C-
Windom	-C-

* MISSOURI (5) (Barrier)

Kennett	-C-
Marshall	-C-
North Kansas City	-C-
Springfield	-P-
West Plains	-P-

* MISSISSIPPI (0)

* MONTANA (1) (Barrier)

Bozeman	-P-
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* NEBRASKA (0) (Barrier)

* NEVADA (1) (Barrier)

Churchill	-C-
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* NEW HAMPSHIRE (4)

Chesterfield -C-
Dublin -C-
Harrisville -C-
Rindge -C-

* NEW JERSEY (0)

* NEW MEXICO (1)

Santa Fe -P-

* NEW YORK (1)

Hogansburg -P-

* NORTH CAROLINA (6) (Barrier)

Highlands -P-
Pineville -P-
Salisbury -C-
Sylva -P-
Tryon -P-
Wilson -C-

* NORTH DAKOTA (0)

* OHIO (9)

Bath -P-
Copely -P-
Coventry -P-
Dublin -P-
Fairlawn -C-
Hamilton -P-
Hudson -P-
New Albany -P-
Springfield -P-

* OKLAHOMA (3)

Ponca City -P-
Sallisaw -C-
Tuttle -C-

* OREGON (9)

Douglas County -P-
Independence -C-
Hillsboro -P-
Klamath County -P-
Lane County -P-
Monmouth -C-
Sandy -C-
Sherwood -P-
The Dalles -P-

* PENNSYLVANIA (1) (Barrier)

Kutztown -C-

* RHODE ISLAND (3)

East Providence -P-
Pawtucket -P-
Providence -P-

* SOUTH CAROLINA (2) (Barrier)

Oconee County -P-
Orangeburg County -P-

* SOUTH DAKOTA (2)

Faith -P-
Brookings -C-

* TENNESSEE (27) (Barrier)

Athens -P-

Bloomingtondale	-C-
Blountville	-C-
Bluff City	-C-
Bristol	-C-
Clarksville	-C-
Chattanooga	-C-
Colonial Heights	-C-
East Ridge	-C-
Erwin	-C-
Jackson	-C-
Johnson City	-P-
Jonesborough	-P-
Kingsport	-C-
Lookout Mountain	-C-
Madison County	-P-
Milan	-P-
Morristown	-C-
Newport	-P-
Pulaski	-C-
Red Bank	-C-
Ridgeside	-C-
Signal Mountain	-C-
Spurgeon	-P-
Sullivan County	-P-
Tulahoma	-C-
Walnut Hill	-C-

* TEXAS (2) (Barrier)

Hudson Oaks	-P-
Mont Belvieu	-C-

* UTAH (14) (Barrier)

Spanish Fork	-C-
UTOPIA - Brigham City	-C-
UTOPIA - Centerville	-C-
UTOPIA - Layton	-C-
UTOPIA - Lindon	-C-
UTOPIA - Midvale	-P-
UTOPIA - Murray	-P-
UTOPIA - Orem	-P-
UTOPIA - Payson	-C-
UTOPIA - Perry	-C-
UTOPIA - Tremonton	-C-
UTOPIA - West Point	-C-
UTOPIA - West Valley City	-C-
UTOPIA - Woodland Hills	-C-

* VERMONT (27)

Bethel	-P-
Barnard	-C-
Braintree	-C-
Brookfield	-C-
Chelsea	-P-
Fairlee	-P-
Granville	-C-
Hancock	-C-
Hartfield	-P-
Hartford	-P-
Norwich	-C-
Pittsfield	-C-
Pomfret	-C-
Randolph	-P-
Reading	-P-
Rochester	-C-
Royalton	-P-
Sharon	-C-
Stockbridge	-C-
Strafford	-C-
Thetford	-C-
Tunbridge	-C-
Vershire	-C-
West Fairlee	-P-
West Windsor	-C-
Windsor	-P-
Woodstock	-P-

* VIRGINIA (38) (Barrier)

Accomac -P-
Atlantic -C-
Belle Haven -P-
Bobtown -P-
Cape Charles -P-
Cheapside -P-
Cheriton -P-
Cloverdale -P-
Danville -P-
Eastville -P-
Exmore -P-
Galax -P-
Greenbackville -P-
Hallwood -P-
Harborton -C-
Hollins -P-
Hornstown -P-
Keller -P-
Luray -P-
Martinsville -P-
Nassawadox -P-
Oak Hall -P-
Onacock -P-
Onley -P-
Oyster -P-
Page County -P-
Painter -P-
Pungoteague -P-
Quinby -P-
Roanoke -P-
Rockbridge County -P-
Salem -P-
Sanford -P-
Shenandoah -P-
Stanley -P-
Temperanceville -P-
Wachapreague -P-
Wattsville -P-

* WASHINGTON (71)

Aberdeen -P-
Agate -P-
Allyn-Grapeview -P-
Ardenvoir -P-
Badger Mountain -P-
Bauer's Landing -P-
Belfair -P-
Benton City -P-
Blewett -P-
Bridgeport -P-
Bridgeport Bar -P-
Burlington -P-
Cashmere -C-
Chelan -P-
Chelan County -C-
Cheney -P-
Chumstick -P-
Clallam County -P-
Collins Lake -C-
Coulee City -P-
Coulee Dam -P-
Desert Aire -C-
Desert Canyon -P-
Douglas County -P-
Dryden -C-
East Wenatchee -P-
Emerald Lake -C-
Entiat -P-
Ephrata -P-
Franklin County -P-
Grand Coulee -C-
Grant County -C-
Harstine Island -P-
Hartline -C-
Island Lake -C-
Island Shores -C-
Kamilche -P-

Kitsap County	-P-	
Lake Cushman		- P-
Lake Nahwatzel		- C-
Leavenworth		- C-
Mansfield		- P-
Matlock		- P-
Mattawa		- C-
Meritt	-P-	
Monitor	-C-	
Moses Lake	-P-	
Mt Vernon	-P-	
Newport	-C-	
Okanogan County	-P-	
Orondo	-P-	
Pacific County	-P-	
Palisades	-P-	
Pasco	-C-	
Pend Oreille County	-P-	
Peshastin	-C-	
Port of Skagit County	-P-	
Prosser	-C-	
Quincy	-C-	
Royal City	-C-	
Sequim	-P-	
Soap Lake	-C-	
Sun Cove	-P-	
Tahuya	-P-	
Warden	-C-	
Waterville	-P-	
Wenatchee	-C-	
Wilson Creek	-C-	
Withrow	-P-	
Wooten Lake	-C-	
Yodelin	-P-	

* WEST VIRGINIA (0)

* WISCONSIN (6) (Barrier)

Eau Claire	-P-	
Lake Delton	-P-	
Loganville	-C-	
Reedsburg	-C-	
Sauk County	-P-	
Wisconsin Dells	-P-	

* WYOMING (1)

Powell		- C-
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