City of Palo Alto (ID # 13530)

Utilities Advisory Commission Staff Report

Report Type: New Business **Meeting Date: 9/1/2021**

Summary Title: Permit Processes

Title: Discussion of Permit Processes for Various Energy Technologies

From: City Manager

Lead Department: Utilities

Recommendation

This item is for Utilities Advisory Commission (UAC) information and discussion; no action is requested.

Executive Summary

Palo Alto Utilities (PAU) and the Planning and Development Services department (PDS) provided an update to the UAC on April 7, 2021 on the City's permitting and inspection process related to electrification permits. The UAC requested this update in part due to complaints it was receiving about the program and concerns about the City's efforts to advance electrification interests and support broader sustainability goals.

This report provides an update on action that has been taken since that April meeting and additional measures that are in progress or anticipated to be addressed in the near future. Following this meeting, staff will return to the UAC in four months with another update to document progress being made to streamline electrification permitting in Palo Alto.

Background/Discussion

The prior UAC staff report[1] provides information documenting many of the challenges solar installers and homeowners have been experiencing with the City's electrification[2] permit and inspection processes. The earlier report also includes findings from an independent consultant analysis of specific issues that resulted in excessive delays and costs that have discouraged some contractors and homeowners from pursuing electrification projects in Palo Alto.

The City has long held a commitment toward advancing local sustainability initiatives. Delays in electrification permit application processing, unnecessary cost burdens and unpredictable

[1] UAC Staff Report, dated April 7, 2021: https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/utilities-advisory-commission/archived-agenda-and-minutes/agendas-and-minutes-2021/04-07-2021-special/id-12032.pdf

[2] Electrification permits is used generally in this report to include solar panel installations, energy storage systems, heat pump water heater and furnaces, and electric vehicle charging stations.

inspection procedures are antithetical to that effort and have been the focus of PDS, PAU and the Fire Department over the past several months to better align the City's sustainability interests and electrification permitting and inspection procedures.

The following actions have been ***implemented*** to improve electrification permit application processing:

Plan Review Timelines for Electrification Permits Shortened

Electrification permits were taking too long to process, a condition that was exacerbated when PDS made the shift to its online permitting system during the pandemic. A number of changes were made to the online permit system that reduced processing delays identified in the consultant's analysis and shared by contractors as problematic. Staff has also reviewed and reduced the application review processing timelines for each electrification permit. These two improvements have resulted in shorter application processing times as summarized below:

	Pre-Application[3] (Calendar Days to Accept Application Between May 2020 and August 2020)	Pre-Application (Calendar Days to Accept Application Between May 2021 and August 2021)	Building Permit (Calendar Days to Receive 1st Round Comments May 2020 – April 2021)	Building Permit (Calendar Days to Receive 1st Round Comments May 2021 – Present)
All Electrification Permits	14 Pre-Applications Converted to Building Permit w/in 7 Days: 51%	12 Pre-Applications Converted to Building Permit w/in 7 Days: 60%	23	11 (9.5 Days Since June)
Solar PV	11 Pre-Applications Converted to Building Permit w/in 7 Days: 61%	9 Pre-Applications Converted to Building Permit w/in 7 Days: 70%	19	11 (8.6 Days Since June)

PDS has prioritized its building permit review of electrification permits to align with the City's sustainability goals. This effort requires coordination from different reviewing departments including PDS, Fire, and PAU. Most electrifications building permits are targeted for reviewed within 1 to 5 calendar days (PV/ESS 10kW or less; service panel upgrades to 200 amps; and EVSC 50 amps or less). Some larger systems may take up to 14 days to review (PV/ESS >10kW,

[3] Pre-Application is a screening process staff uses to determine if an applicant has submitted all the necessary documents and paid appropriate fees before plan examiners can review the plans (building permit). This approach enables an applicant to apply anytime, online, without the need for an appointment. In person and virtual appointments are available to anyone seeking to apply, which may shorten or eliminate the pre-application processing time. Appointments can be scheduled at the Development Center or online: https://www.cityofpaloalto.org/Departments/Planning-Development-Services/Development-Services

including indoor ESS; service panel upgrades >200 amps; and EVCS > 50 amps). More complex combination permits and commercial installations may take up to 30 days to receive a first round of corrections.

Automated Daily Electrification Report & Oversight

Reduced application processing times help prioritize plan reviewer assignments, but limited resources and competing projects may result in some missed targets. Previously these projects were processed in the order received. A new daily report transmitted to the development center manager, project coordinators and staff from other departments provides a tool to keep track of pending or late applications. The development center manager ensures any late projects are quickly reviewed to limit further delays. The processing times shown in the table above, combined with the commitment to prioritize this work, shows the progress that has been made to reduce application processing times since these improvements were implemented.

Weekly Inter-Departmental Meetings

Managers and technical staff from PDS, Fire, and PAU meet weekly for one hour to review the daily electrification report and collaborate on initiatives that minimize the regulatory burden and costs associated with electrification permits, establish customer service expectations, improve internal communication and promote consistency in the City's review of these permits. The meeting is facilitated by the PDS director.

Enhanced Problem Solving

The applicant for any electrification permit that requires a third review (beyond the original application submittal plus one resubmittal) will be contacted by the City to set up a meeting with appropriate staff and the applicant team to ensure there is understanding on what is required to obtain a building permit and address any confusion on the plans or City requirements. Often in these meetings, outstanding issues can be resolved mitigating the need for another resubmittal, which serves to further expedite permit issuance.

When the department receives a complaint about an electrification permit, all the appropriate staff from various departments are brought in to quickly address the issue. Any lessons learned from the complaint are presented at the weekly inter-departmental coordination meeting for discussion to minimize the chance for reoccurrence and training.

Moreover, as previously reported, the PDS director has set up an email address to receive any complaints regarding the application entitlement, permitting or inspection operations. Messages are typically returned the same day or within 24 hours. The email address is: pdsdirector@cityofpaloalto.org.

Inspector Cross Training

To improve consistency among the City's inspection services and to support cross training efforts, inspectors – for a limited time – are shadowing each other on many electrification

installations. The inspectors meet regularly with the inspection manager to discuss projects and share their experiences and interactions from a jobsite with the intent to impart any learning experiences that may improve the program's customer service and problem-solving focus. Creating consistency in this program to enhance the likelihood that corrections from two different inspectors would be the same has been a goal of this effort.

Building inspectors are also coordinating with inspectors from Fire and PAU to eliminate the need for the contractor to schedule inspections from three different departments.

Review of City Requirements Compared to Other Jurisdictions

PAU has conducted a survey of other utility providers in California to better understand how its local regulations requiring a lockable AC blade disconnect differed from other providers. One of the complaints frequently received from contractors is that Palo Alto has unique requirements that differ from nearby jurisdictions. For this specific issue, many nearby jurisdictions are served by PG&E and this utility provider does not require a lockable blade AC disconnect for many comparable systems installed in Palo Alto. This provision, however, is not unique to Palo Alto and other utility providers throughout California have a similar requirement.

City inspectors and plan reviewers have also reviewed requirements related to fire and building requirements. This work ties into another effort noted below to align the City's checklists and inspection procedures to match state law where applicable, but, as also discussed below, the City will continue to require at least one lockable blade AC disconnect.

The following actions ***are currently underway and expected to be completed within the next four months*** to improve electrification permit application processing:

Revisions to Application, Plan Review and Inspection Checklists (all electrification permits)

The City is in the process of updating and consolidating PDS, Fire and PAU requirements into application-specific checklists for submittal, plan review compliance and inspection services. These checklists will address all electrification permits, including combination permits, for residential and commercial installations.

The purpose of the checklist is to clearly identify what information is needed to accept an application for review, what aspects of the project the plan reviewers will examine on the plans for compliance to local and state law in order to issue a permit, and lastly, the critical compliance requirements that will be inspected in the field. With proper implementation, this effort should improve the City's overall consistency for electrification permits.

An initial draft of the residential requirements for PV, ESS and EVCS has prepared and will be reviewed by some contractors who are expected to provide initial feedback to staff. The checklists will be revised as necessary and published online when complete. This process will be repeated for other electrification permits until all have been updated.

Conversations with Trade Professionals

Staff has engaged some contractors regarding specific projects and is using this information to implement changes to the City's application review procedures. Initial conversations have also begun with Telsa representatives to better understand their proprietary gateway backup and battery storage system to facilitate project review. Based on these conversations, City staff is preparing line drawings to illustrate the preferred placement of these integrated photovoltaic and battery storage systems relative to the City's electrical feed, meter and local requirement for a lockable AC blade disconnect. It is anticipated these diagrams would be referenced by contractors to improve application processing time and reduce the need for additional disconnects.

Automated Solar Permitting (Solar APP +)

City staff has been talking with representatives of the National Renewable Energy Laboratory to explore the possibility of using their Solar APP + to facilitate permit issuance of solar rooftop and eventually battery storage systems. Over the next several months, staff will continue to explore its feasibility and integration with the City's permitting operation; staff will report to the UAC next quarter on a possible timeline for implementation.

Customer Feedback

Staff is preparing a brief survey to receive feedback on our customer's experience working at various touchpoints in the permitting and inspection process. Aggregated survey results are expected to be posted online, and a respondent will have the option to request a closer examination of their particular (and personally identifiable) issue or concern. Survey's will be web-based and transmitted via email or text and available from the City's website.

Before returning to the UAC ***in Spring 2022***, staff anticipates implementing the following additional refinements:

Website Improvements

Staff plans on leveraging features of the City's new website to make it easier for homeowners and contractors to access information to support electrification on residential and commercial properties. Information from various departments will be consolidated in one place, regularly updated and provide access to forms, checklists, sample line drawings, surveys, information on local or state rebates and what to expect when deciding to install electrification infrastructure at one's home, and other relevant material (see below).

Contractor Database

One of the criticism's staff has heard repeatedly is the challenge of homeowners trying to find contractors that will work in Palo Alto. Concerns about the length of time to process applications, the rigorous review process and inconsistent inspector experience – combined with a lower return to the solar contractor due to the City's lower utility rates, makes it less desirable for some installers to work in the City. The efforts taken to date and detailed in this report are intended to mitigate most of those issues (utility rates are not being considered for

this discrete issue of permitting and inspection). Staff intends to reach out to contractors that are known to do work in other jurisdictions to re-introduce them to our updated policies and procedures – and commitment to facilitate electrification projects in Palo Alto.

While the City is not able to provide a list of recommended electrification contractors, it anticipates providing a list of those contractors that have pulled permits from the City over a defined period of time, how many permits were pulled, identify the type of installation constructed, and contact information. Information may also be provided on how long it takes to obtain a permit from each contractor and number of inspections that were required to obtain final approval.

During this timeframe, staff will also provide an update on its ability to use integrated third party apps and possible zoning code amendments to facilitate electrification permit installation and application processing.

Lockable AC Disconnect

A notable compliant the City has received is the requirement for a lockable AC blade disconnect for PV and ESS. This provision is set forth in the local Palo Alto Utility regulations, Rule 27.[4] Depending on the design of a PV or ESS equipment, more than one lockable disconnect may be required. Other Santa Clara County jurisdictions supported by PG&E do not have this requirement. The PG&E threshold for a lockable AC blade disconnect is a higher than Palo Alto and often not applied to residential installations.

City staff from PDS, Fire and PAU have reviewed their respective AC disconnect requirements. For PDS and Fire, the standard meter disconnect is sufficient to satisfy state requirements. PAU has reviewed Rule 27 and finds that the safety and other benefits affordable by a lockable blade disconnect warrant its retention. Accordingly, based on local standards, PV and ESS facilities will be required to install at least one AC blade disconnect to satisfy this requirement. While a system, if properly designed, could be limited to one blade disconnect, some applicants may prefer to install two smaller disconnects due to space constraints or other design limitations.

Plan reviewers from each department are now looking closely at this issue. If a design includes more than one blade disconnect, staff is coordinating on that plan review to understand if there is another design option that would reduce the number of disconnects. As previously noted, staff is also working on line drawings to illustrate conformance with these requirements.

Timeline

This report details a number of implementation measures that have already been initiated, others that are pending and anticipated. PDS plans on returning to the UAC at least twice more following this meeting to provide updates on its efforts to improve the electrification permitting and inspection process.

[4] PAU Rules and Regulations, Rule 27: https://www.cityofpaloalto.org/files/assets/public/utilities/rules-and-regulations/rule-27-generating-facility-interconnections-effective-2016-12-12.pdf

Resource Impact
The recommendation in this report does not have any significant fiscal or budgetary impacts.

Policy Implications
This report details specific action taking place to align the City's permitting and inspection programs with the City Council's expressed goals to advance carbon reduction strategies. PDS and other departments involved in the review process have dedicated staff resources aimed at reducing the amount of time it takes to process applications and improve consistency in its requirements and clarify expectations for inspecting installations in the field.

Stakeholder Engagement
Staff has scheduled regularly meetings with UAC to provide a status update on efforts that improve the City's electrification permitting and inspection processes. From time to time, either on specific projects, or as partners to help review draft City documents, staff is engaging contractors and other individuals interested in our electrification efforts. Internal coordination among City departments, supported by the department heads from PDS, Fire and PAU are a key component of this engagement strategy.

Environmental Review
The recommendation in this report is not a project in accordance with the California Environmental Quality Act.