

## Review of Best Practices in Online Permitting

### Summary

This document summarizes online permitting best practices based on literature review, a general survey of contractors and jurisdictions to get their perspective of online permitting, and interviews with several jurisdictions that currently use an online permitting system. While it is generally considered that online permitting will make the permitting process simpler for all involved, development of a user-friendly system that meets all stakeholder needs will be challenging. This document identifies many of these challenges.

**Finalized:** October 18, 2017

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### Use of this document

*This document is one of five developed during 2017 to serve as initial guidance to HVAC industry stakeholders interested in pursuing a framework for online permitting. This information may be useful outside of the state of California to help policy makers and other HVAC and energy efficiency stakeholders gain insights into the factors that may impact setting up or improving an online permitting system.*

*This document is based on an official [WHPA Work Product](#) of October 18, 2017 titled “Review of Best Practices in Online Permitting Memo.” This Work Product was developed by the WHPA Compliance Committee’s Online Permitting Working Group.*

*This document, and also the WHPA Work Product, may be used in part or whole at no charge. Attribution to the Western HVAC Performance Alliance is requested.*

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### Background

The issue of permitting and code compliance for Heating, Ventilating and Air Conditioning (HVAC) systems has been the subject of discussion within the California regulatory policy arena for many years. The California Energy Efficiency Strategic Plan (Strategic Plan) originally released in 2008 (and updated in 2011) identified that “less than 10 percent of HVAC systems obtain legally required pre-installation local building permits.”<sup>1</sup> The Strategic Plan established specific goals to facilitate the “consistent and effective compliance, enforcement, and verification of HVAC-related building and appliance standards”. One of these goals was to streamline the local government permitting system.

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<sup>1</sup> California Energy Efficiency Strategic Plan, January 2011, page 54.

During 2017, and in prior years, the WHPA Compliance Committee and its Online Permitting Working Group have developed a series of Work Products to inform various elements of a permitting framework. This document is one of five, plus a summary and feasibility document, developed during 2017.

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## Overview

The “Best Practices in Online Permitting Working Group” was established to identify online permitting systems that are currently in use and document best practices from these systems that can be applied to the creation and implementation of an HVAC online permitting system (OPS). The following data sources were used to inform this effort:

1. California Solar Permitting Guidebook
2. Green It Forward – Imperial Valley Streamlined Online HVAC Permitting Pilot Program
3. Energy Code Ace Application Guidelines
4. Recent examples of OPS implementations
  - a. State of Oregon
  - b. City of San Francisco
5. Input from jurisdictions that currently utilize an OPS
6. Contractor and Jurisdictional Surveys

## Findings

### 1. California Solar Permitting Guidebook

The first California Solar Guidebook<sup>2</sup> was published in 2012 to help make solar installations standardized, less expensive and increase utilization throughout California. The Guidebook is designed to help local governments and their permitting agencies improve permitting of small solar energy systems and help building owners and solar installers navigate permitting as efficiently as possible. There are several recommendations provided in the Guidebook that are directly relevant to the HVAC permitting process.

- Provide clear written instructions on the permitting process on the Internet and at the department’s counter to reduce errors by permit applicants.
- Use online or electronic application submittal and permit issuance, including use of e-signatures, to minimize or eliminate backlogs at the counter and, thus, free up staff time to focus on more complex permit applications.
- Use a simple eligibility checklist to determine whether projects qualify for expedited permitting and requisite written materials.
- Use simple, standardized forms across jurisdictions to reduce permit submittal errors among contractors working throughout a region and to simplify review for staff.
- Host contractor training events to train contractors on proper permit submittals.

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<sup>2</sup> [https://energycenter.org/sites/default/files/docs/nav/policy/research-and-reports/Solar\\_Permitting\\_Guidebook\\_2017.pdf](https://energycenter.org/sites/default/files/docs/nav/policy/research-and-reports/Solar_Permitting_Guidebook_2017.pdf)

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- Allow plan review and permit issuance completed “over-the-counter” for walk-in applications or electronic submittals, or automatically through online software. Maximum timeframe of 1-3 days to review if over-the-counter approval is not offered.
- Establish statewide permit fee limits for residential and commercial projects.
- Enable inspection requests to be submitted online or electronically.
- Provide for on-site inspection during the next business day after notification that the solar system has been installed; if next business day is not possible, schedule inspection within five days.
- Provide a scheduling time window for on-site inspection of no more than two hours, and utilize phone and/or email communication to provide information on anticipated inspection time.

## 2. Green it Forward – Imperial Valley Streamlined Online HVAC Permitting Pilot Program

Energy Cloud conducted a pilot for an online permitting system in the Imperial Valley<sup>3</sup>. The pilot involved the cities of El Centro, Imperial, Calexico and Brawley and four HVAC contractors that serve the valley. The multi-jurisdictional pilot sought to demonstrate the viability of an online permitting platform for HVAC change-outs. This pilot showed the need for a flexible platform that can work across multiple jurisdictions and work with different systems within those jurisdictions. Best practices and lessons learned from the pilot included:

### Building Departments

- Value a system that is easy to learn and use
  - Want the ability to verify CSLB license and insurance status to reduce the work load on department staff
  - Prefer a no-cost system
  - See value in increased revenue due to more contractors pulling permits
  - Each have specific processes and requirements that need to be incorporated into an online system
  - Want to maintain their internal permit number system
  - Require ability to accept and manage specific documents required as part of the permit process (e.g. CF-1R)
- HVAC Contractors
    - Value a system that is easy to learn and use
    - Need to have a system that will incorporate all the different processes and requirements for each jurisdiction in which they operate
    - Prefer minimal interaction with building department personnel
    - Prefer immediate approval of permit application, but same day is acceptable
    - Want the system to accept all major credit cards
    - Want all documentation to be accessible online and notification sent via email when permits are approved; want documents to remain online for future download as needed

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<sup>3</sup> [https://www.greennet.com/media/case\\_study/EnergyCloud.Online.Permitting.Best.Practices.pdf](https://www.greennet.com/media/case_study/EnergyCloud.Online.Permitting.Best.Practices.pdf)

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### 3. Energy Code Ace Application Guidelines

The Energy Code Ace Web site<sup>4</sup> was developed by the California Statewide Codes & Standards Program and offers free energy code training, tools and resources for those who need to understand and meet the requirements of Title 24, Part 6 and Title 20. These tools were designed to improve compliance with the state's building and appliance energy codes and standards. The program aims to advance the adoption and effective implementation of energy efficiency measures and building practices to lock in long-term energy savings.

There are many tools and resources available at Energy Code Ace that provide much of the information suggested in the California Solar Permitting Guidebook. For example, there are checklists for Plans Examiners that can be used as part of an "HVAC Permitting Guidebook," along with other checklists geared towards contractors.

A best practice would be to integrate Energy Code Ace into building department OPS and/or department websites and use the various resources available to ensure consistency of code requirements and checklist information. This educational tool is a valuable resource and needs to be made more accessible to all parties interacting with online permitting.

### 4. Recent Examples of OPS Implementations

There are several examples of an OPS implementation that have been discussed within the OPWG. There was limited information available regarding the Oregon Statewide Permitting System, the City of San Francisco system was mired in cost overruns which prevented it from being fully implemented and the Las Vegas system is too new to form any conclusions. However, the one lesson learned from these examples is that an effective software implementation that can be used across jurisdictions will be difficult and costly and must be managed carefully.

#### City of Las Vegas

Las Vegas released a new permitting system and website functionality on June 12th, 2017<sup>5</sup>. This new system adds more permits to their online permitting system and also gives contractors and designers the ability to begin the application process online. While this system is too new to know whether there are any best practices that can be applied to other such systems, it is a potential resource for future evaluation. Assuming that sufficient market feasibility for such a system in California can be documented, it may be appropriate to evaluate the Las Vegas system at a later date and report on the findings in an addendum to the Best Practices Memo.

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<sup>4</sup> <http://energycodeace.com/>

<sup>5</sup> [https://www.lasvegasnevada.gov/portal/faces/wcnav\\_externalId/pl-building-permits?\\_adf.ctrl-state=bedbajlh4\\_4&\\_afLoop=244746181636707&\\_afWindowMode=0&\\_afWindowId=null#%40%3F\\_afWindowId%3DnuIl%26\\_afLoop%3D244746181636707%26\\_afWindowMode%3D0%26\\_adf.ctrl-state%3D18pobrodm9\\_4](https://www.lasvegasnevada.gov/portal/faces/wcnav_externalId/pl-building-permits?_adf.ctrl-state=bedbajlh4_4&_afLoop=244746181636707&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3DnuIl%26_afLoop%3D244746181636707%26_afWindowMode%3D0%26_adf.ctrl-state%3D18pobrodm9_4)

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### State of Oregon

About 10 years ago, Oregon implemented a statewide electronic permitting pilot built on the Accela Civic Platform. The pilot involved 9 cities and 4 counties<sup>6</sup> and the goal was to ultimately “allow both businesses and individuals to conduct building department business, including applying, paying, and receiving building permit approval, online morning, noon and night, with any city or county in the state.”<sup>7</sup> As of 2011, online permitting was available from “34 jurisdictions, covering nearly 60 percent of the state's population, and more than 90,000 permit applications have been processed since the site's launch.”<sup>8</sup> The system is still in use with 38 cities and 22 counties currently participating.<sup>9</sup>

### City of San Francisco

The San Francisco online system was also built on the Accela platform, but was never implemented due to cost overruns. Additionally, some observers have indicated that a contributing factor to these cost overruns was a building department that resisted change and requested new requirements that were not part of the original scope<sup>10</sup>.

## **5. Input from jurisdictions that currently utilize an OPS**

Technicians from several cities were asked their opinions on the online permitting systems currently operating in their building departments. These individuals were partial to the department-wide integration of the system and verification of information submitted and processed. One common dislike that was shared was the slow connectivity speeds of the web-based platforms. System speed has a direct impact on utilization as it can reduce the throughput of permit processing.

- **Permit Technician for City of Fairfield: “We use TRAKiT, and I like the department-wide integration, but I dislike the slow speed that the system operates at.”**

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<sup>6</sup> “Oregon expands statewide online permitting service”, bizjournals.com, October 9, 2006,

<https://www.bizjournals.com/portland/stories/2006/10/09/daily7.html>

<sup>7</sup> “Oregon to Pursue Nation’s First Statewide Online Permitting Service”, Salem-News.com, October 11, 2006,

[http://www.salem-news.com/articles/october112006/const\\_permits\\_101106.php](http://www.salem-news.com/articles/october112006/const_permits_101106.php)

<sup>8</sup> “State of Oregon Honored for Accela-Based Statewide e-Permitting Website”, Marketwire, September 20, 2011,

<https://www.yahoo.com/news/State-Oregon-Honored-Accela-iw-3393250198.html>

<sup>9</sup> <https://aca.oregon.accela.com/oregon/>

<sup>10</sup> “Building inspectors’ online permit tracking mired in bugs, blame”, San Francisco Chronicle, November 29, 2015,

<http://www.sfchronicle.com/bayarea/article/Building-inspectors-online-permit-tracking-6663895.php>

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- **Permit Technician City of Moreno Valley:** "I like the ability to input the data quickly and then know that it has been received by email submittal. Permit system is Accela and a downfall is it is web-based, so connectivity and response times are slow."
  - **Permit Technician for El Centro:** Use the MyGov permit system. "I like that I can create things on the fly. As issues arise – for instance, state requirements – we can create our own special permits to accommodate new processes with ease. The one thing I don't like is that there are 3 different departments using the system and communication can become tricky. I would like the system to be able to identify which department is utilizing the system and at what time."
  - **Permit Technician for Lodi:** Use the iWork permit system. "It's not serving our needs. I want it to be customer-friendly, where anyone can log on and look at permits and statuses. We only chose this system because it was cost-effective."
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## 6. Contractor and Jurisdictional Surveys

The Online Permit Working Group conducted two surveys in May 2017<sup>11</sup>. One survey focused on HVAC contractors and the other focused on local building departments. The purpose of the surveys was to evaluate the potential of a statewide, online application designed for HVAC Contractors for the purposes of applying for and obtaining a permit, and for tracking permits issued. The comments given in response to several survey questions provided some insight into the contractor and building department wants and needs as they pertain to an online permitting system. Those responses have been integrated into the conclusions below.

## Conclusions

The following conclusions can be drawn from all the resources reviewed to prepare this memo:

1. A singular Online Permitting System should be developed and made accessible for all jurisdictions statewide to maintain procedural consistency and expedite the permitting process with standardized data. It should be easy for Building Departments to use and should integrate with current systems and processing by allowing an open API interface. This work may be of value to additional online permitting activities;
2. Jurisdictions with existing online systems should incorporate an open API interface that complies with CEC requirements;
3. The OPS system should be offered to Building Departments for little to no fiscal impact, but a regular impact fee should be included that can be reimbursed through permit application fees and would pay for system operation and upgrades;
4. Standardization has served to decrease permit time and increase utilization for many jurisdictions in the state;
5. Requirements for an OPS system should be well-defined prior to the solicitation process;
6. The system should incorporate strong cybersecurity measures in order to maintain privacy and confidentiality;
7. Building department staff training during the roll-out period is necessary to support adoption of the process;
8. Templated checklists, forms and agreements should be utilized by all department personnel and applicants to ensure understanding and accuracy of permit procedures;
9. Any system should seek to minimize the impact to the industry, while seeking to be flexible over time;
10. The system should be easy for Contractors to use, reduce their time to apply for permits, and enable access to all required documents for future download as needed;
11. Permit fee schedules need to be organized clearly and readily available to all applicants;
12. The system should be 100% online including payment of fees thus eliminating the need for in-person interaction at the building department;
13. To make the system as convenient as possible for users, it should be able to be accessed remotely via smartphone, tablet, or other similar device;
14. System connectivity speed is important as stored documents need to be accessed quickly and easily;

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<sup>11</sup> Memorandum 2017 WHPA Online Permitting Jurisdiction Survey Results and 2017 WHPA Online Permitting Contractor Survey Results, August 2017

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- 15. The system should indicate which users within the building department are logged in to allow for better coordination within the building department;**
  - 16. The system should integrate with other State-implemented systems (e.g. HERS registries) and agencies (e.g. CSLB for license verification) to facilitate permit approvals;**
  - 17. The system should integrate with HERS registries to allow for exchange of data/forms and with the CSLB website to validate contractor licenses;**
  - 18. Implementation should be carefully managed to minimize the potential for cost overruns;**
  - 19. The system should have the ability to send email or text notification to the contractor when a permit has been filed or closed; and**
  - 20. The system should have the ability to send notification to the permit technician, property owner or any other interested party when their permit is expiring and needs renewal, or needs to be closed and completed.**