

Survey of HVAC California Contractors on Feasibility of an Online Permitting System

Summary

This document reports on a survey of California of C-20 licensed contractors about the feasibility of a statewide online permitting system (OPS) which would enable HVAC permit application and obtainment, as well as tracking of permits issued. The survey aimed to ascertain information about if an online application could improve the efficiency and accessibility for both contractors and building departments, and enhance code compliance and statistical accuracy of permit reporting.

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.

Finalized: September 20, 2017

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.

It is based on an official [WHPA Work Product](#) of September 20, 2017 titled “2017 WHPA Online Permitting Contractor Survey Results 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.

Background

California Energy Efficiency Strategic Plan

The issue of permitting and code compliance for Heating, Ventilating and Air Conditioning (HVAC) systems has been the subject of discussion within the 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.”¹ 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.

During 2017, and in prior years, the WHPA Compliance Committee and its Working Group have developed a series of Work Products to inform various elements of a permitting framework.

Memorandum – 2017 WHPA Online Permitting HVAC Contractor Survey Results

Overview

The Western HVAC Performance Alliance (WHPA) Online Permitting Working Group (OPWG), with the assistance of WHPA Staff, developed, tested, and fielded an online survey with HVAC Contractors in the state of California to ascertain the feasibility of a statewide online permitting system (OPS). The goal of this survey 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 survey aimed to gather information as to whether an “online” application could improve the efficiency and accessibility for both contractors and building departments and could enhance code compliance and statistical accuracy of permit reporting.

This survey was specific to the heating ventilation and air conditioning task commonly termed “changeouts”. Changeouts were defined as either: (1) alterations that include new/replacement HVAC components or (2) alterations that include entirely new or replacement HVAC systems (that is, all HVAC equipment and ducts are new/replaced).

Contractor Sample Frame

The OPWG obtained a recent file of C-20 licensed contractors from the California State License Board (CSLB). Unfortunately, this list does not include email addresses and a telephone survey was beyond the WHPA resources available for this study. Instead, the WHPA Staff, reached out to Shahana Samiullah, Ph.D. – the Manager of Measurement and Evaluation at Southern California Edison – and requested permission to use the contractor sample frame from the September 2012 California HVAC Contractor & Technician Behavior Study. This sample frame includes email addresses for C-20 licensed contractors and has been used for several subsequent studies conducted on this population. Despite the age of this sample, the WHPA determined it was the best option given the resources available. The original sample file included email addresses for 1769 contractors. However, 513 of those email addresses were no longer working. To encourage a higher response sample, the C-20 distribution list was supplemented with 53 contractor emails from the WHPA Master List. Overall, WHPA Staff sent the survey to 1822 contractors.

Respondents

The survey was fielded from May 1, 2017 to May 11, 2017 for the original C-20 Sample List and again from May 23 to May 26 for contractors on the WHPA Master List. Three reminders were sent

¹ California Energy Efficiency Strategic Plan, January 2011, page 54.

in the first wave of fielding and two reminders were sent in the second wave of fielding. A total of 45 contractors responded to the survey. Of those contractors, 55.6% (n=24) work on both residential and non-residential systems, 27.3% (n=12) work only on non-residential systems, and 18.2% (n=8) work only on residential systems. Contractors on average operated in 1 – 90 building department jurisdictions, with the average being 17 and the median 10. Contractors reported pulling two permits to 1000 permits each year, with an average of 115 and a median of 50.

Survey Limitations

Given the low response rate, only descriptive statistics are reported. These results should be considered with caution and may not be representative of all contractors.

Key Findings

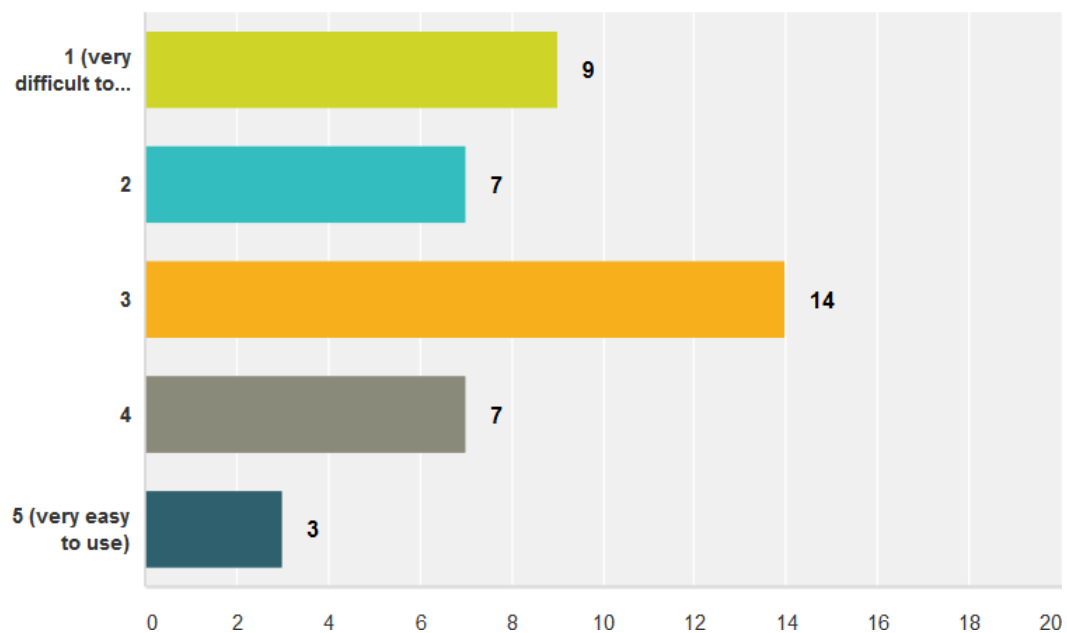
In this section, we overview the key findings from the detailed findings that follow in the next section.

- Of the 35 contractors who responded, 89% (n=31) of Contractors want a standardized permitting system across California. This is something that Air Conditioning Contractors of America (ACCA) and *Institute of Heating and Air Conditioning Industries, Inc. (IHACI)* have been advocating for.
- Of the 36 contractors who responded, 86% (n=31) indicate that a completely online HVAC permitting system would save them time in their day-to-day operations.
- Of the 32 contractors who responded, 34% (n=11) would pay more than they pay for pulling a permit in person for an online permitting system that met all their HVAC permitting needs.
- Of the 35 contractors who responded, 48% (n=19) indicated there were no barriers to prevent them from using an online permitting system.
- Of the 36 contractors who responded,
 - 33% (n=12) of contractors indicated a function to report contractors who are not pulling permits would be useful in an online permitting system.
 - 22% (n=8) of contractors indicated a function to report contractors who are not pulling permits would possibly be useful if contractors knew that it would be enforced.
 - 17% (n=6) of contractors indicated a function to report contractors who are not pulling permits would possibly be useful if contractors knew they could remain anonymous.
 - 28% (n=10) of contractors indicated a function to report contractors who are not pulling permits would not be useful in an online permitting system.

Detailed Findings

In this section, we present responses to specific questions.

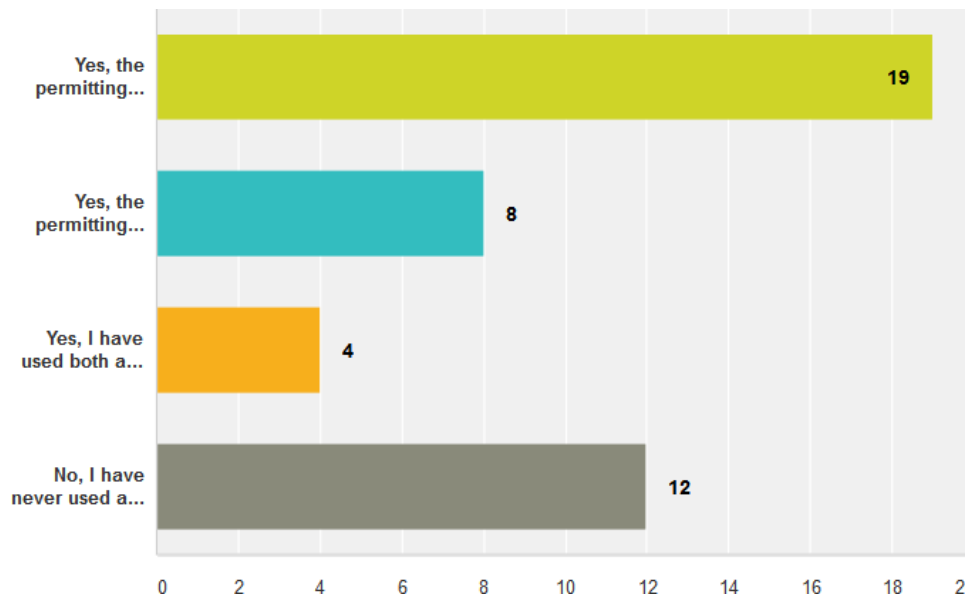
How would you rate the average ease of use of the permitting systems that you use across all the building jurisdictions that you operate in?



How would you rank the following permitting systems in terms of how likely you would be to use the system in your day-to-day business?

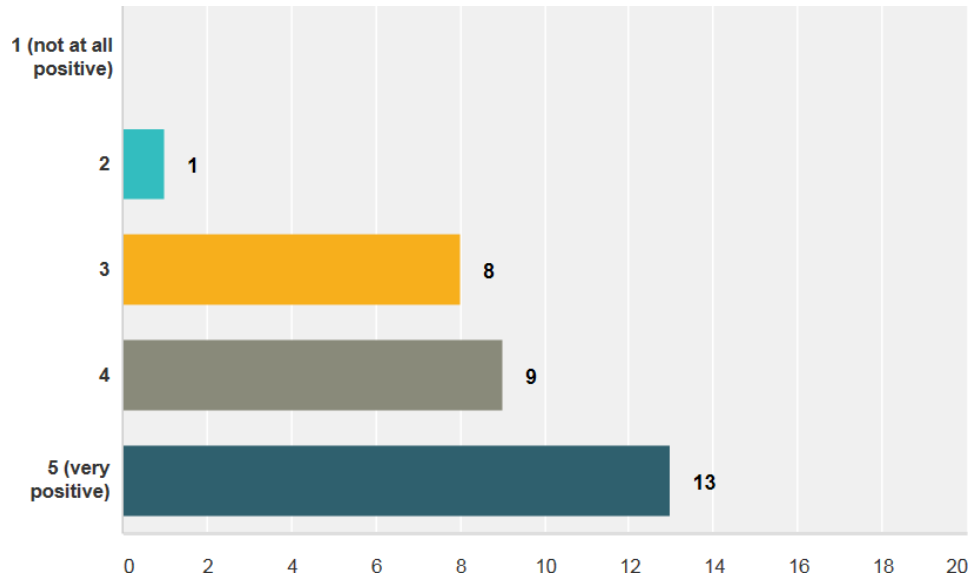
Contractors indicated that they would be most likely (81%) to use an online system that is 100% online, uses a computer, and does not require you to have to go to the building department. The second most preferred option (69%) is a system that is completed 100% online using either a computer or a smart phone or tablet app.

Have you ever used an online permitting system for an HVAC add-on or replacement?



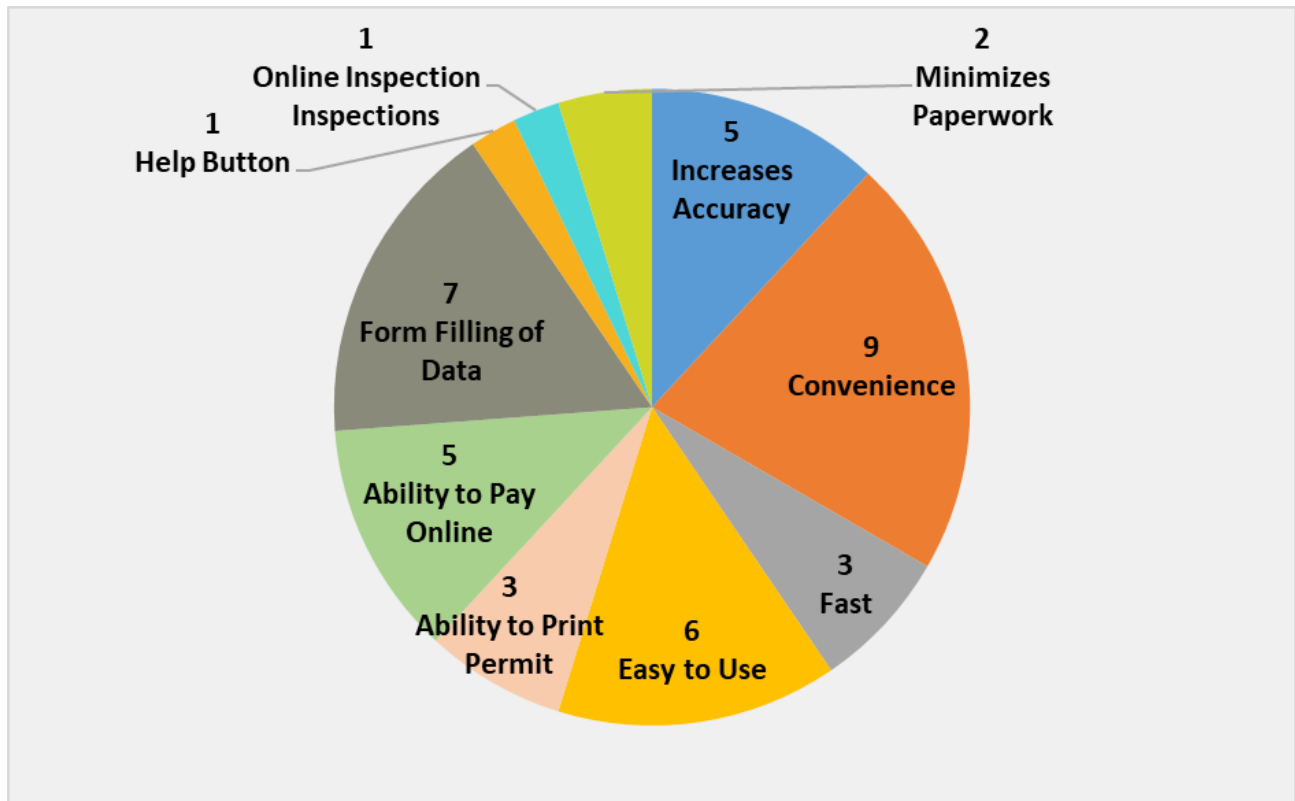
Answer Choices	Responses
Yes, the permitting system was completely online	44.19% 19
Yes, the permitting system was partially online; it allowed some components of the permitting process to be completed online, but I had to go to the building department to complete the permitting process	18.60% 8
Yes, I have used both a completely online permitting system and a partially online permitting system	9.30% 4
No, I have never used an online permitting system	27.91% 12
Total	43

How would you rate your overall experience using online HVAC permitting systems?



What were some characteristics of the online permitting systems that made your experience positive?

The 24 respondents, who responded to this question, indicated many positive characteristics of their prior online permitting experience. These positive characteristics fell into ten categories outlined in the Figure below.



Respondents indicated that they had positive experiences with online permitting systems in the following jurisdictions:

- Butte County
- City of La Quinta
- City of Los Angeles
- City of Modesto
- City of San Bernardino
- City of San Diego
- City of San Francisco
- City of San Luis Obispo
- Rancho Cucamonga
- Sacramento County
- Sonoma County
- Stanislaus County
- San Luis Obispo County (non-incorporated)
- Town of Windsor

What were some characteristics of the online permitting systems that made your experience negative?

The 10 respondents, who responded to this question, indicated a number of negative characteristics of their prior online permitting experience. These included:

1. Clunky interface; unable to find job site property; doesn't recognize changes done on CSLB website.
2. Downtime, confusing verbiage, not sure which inspections to order (differs city by city). Exceptions. Apartments, commercial buildings, etc., not able to use the entire process online - then had to go into the permitting office - wasting time for employees and reducing our profit.
3. Inspection times
4. Mechanical forms are overly complicated.
5. No ability to pay and still had to go to city hall. I would like to handle completely online including uploading title 24 documents instead of wasting paper and time delivering to job site.
6. Not completely integrated still had to do some things over the counter
7. Search terms entered in full not being found due to partial entry by original source of data input. (i.e. An APN is 064-286-371 and the person entering the APN originally entered it without the leading zero so the APN is only found by searching the term "64-286-371" which is not an APN at all.)
8. Supplemental permitting not available online (i.e. City of Irvine deferred submittals)
9. Too slow
10. When questions come up, you don't have someone to help you.

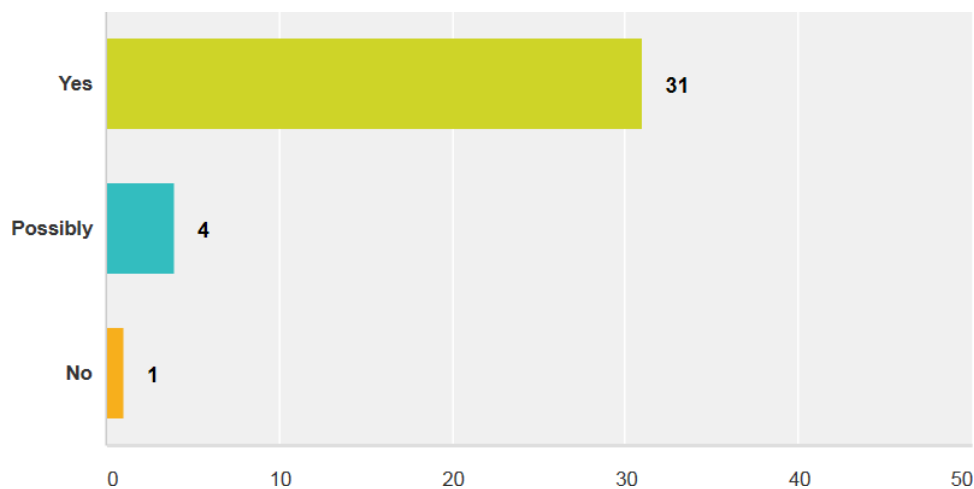
Please list some of the jurisdictions with online permitting systems that you have had negative experiences with.

Respondents indicated that they had negative experiences with online permitting systems in the following jurisdictions:

- City of Irvine
- City of Los Angeles
- City of San Jose

As one respondent indicated, "This [question] is a tough one. I would say all online activity is a positive step towards my business efficiency plan. If the cities made it easier or more convenient to pull permits, more contractors would actually pull permits instead of dodging the process."

Would using a completely online HVAC permitting system save you time in your day-to-day operations?

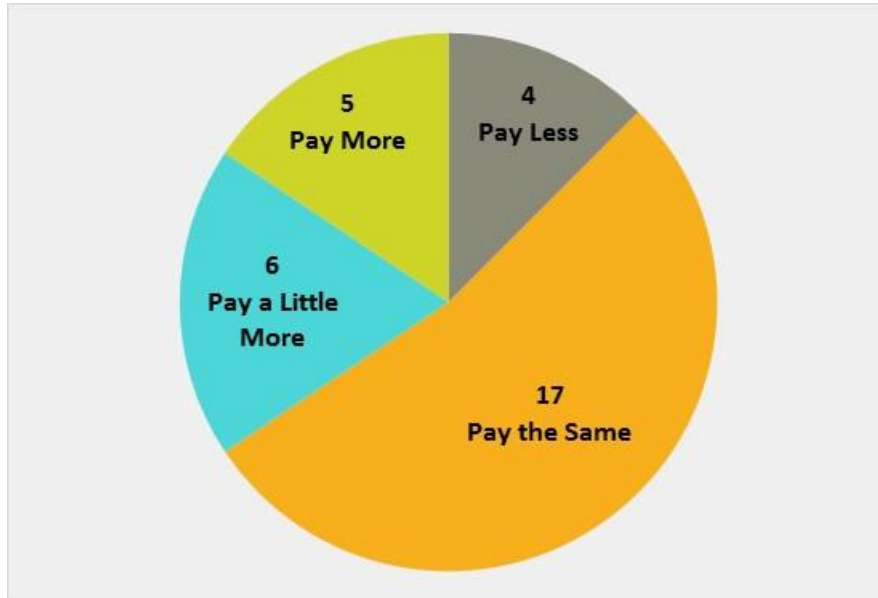


Why or why not?

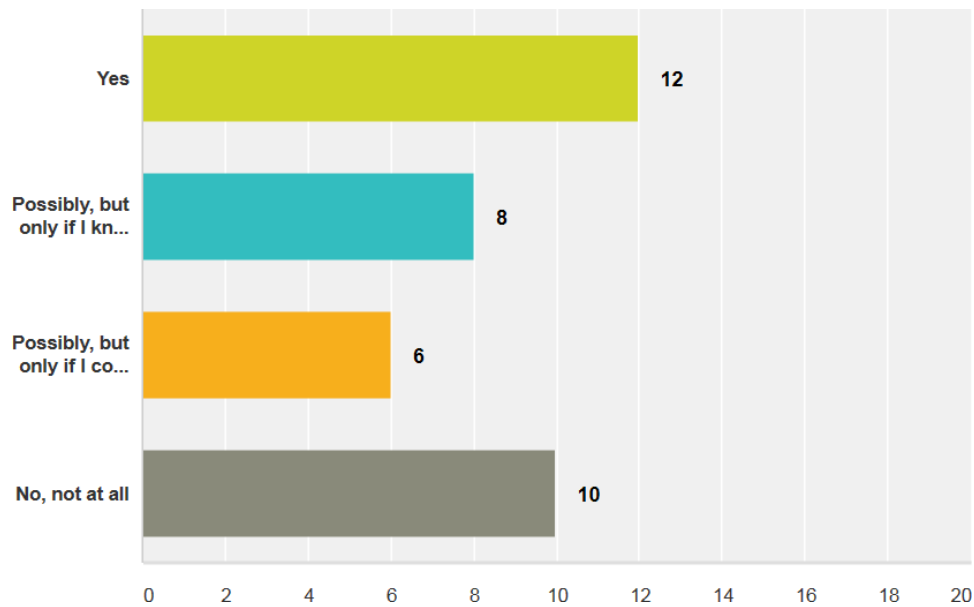
Eighteen contractors responded to this question. They gave the following reasons for why or why not online HVAC permitting would save them time in their day-to-day operations:

1. As long as everything is spelled out. For example - when replacing an HVAC unit, it should state that the following inspections are needed - electrical, mechanical (or whatever is needed)
2. Believe it or not it is a pain to go into the building department. Costs a lot of time both driving there and waiting in line. I am adding 10 hours to every project just for building permits.
3. Can be done at any time and even in the field. We are very short handed and man power is at an all-time low, making time very valuable.
4. Depends on information required
5. Ease
6. Eliminate travel time
7. Less leg work
8. Less trips out of the office, wouldn't have to use a permit fetching service
9. Much quicker process than physically going to a building department.
10. No need to drive down to building department and wait in line and save about 2 hours each time.
11. No need to travel to the jurisdiction to pull the permit.
12. Not having to drive to the building dept. and wait in line. Or as with dealing with the California Dept. of HCD. Taking 3 weeks to get a permit for a changeout.
13. Not having to go to the city saves time and money
14. Pulling a permit usually takes a total of 2-3 hours
15. Short term plan check requiring over the counter approval
16. The time waiting at all these counters
17. Too busy
18. Travel time

If an online permitting system was made available to you, and met all of your HVAC permitting needs, would you be willing to pay more, less, or about the same, as you would compared to the price of pulling the permit in person?



Would you find it useful if the online permitting system had a function to report contractors who are not pulling permits? Check all that apply



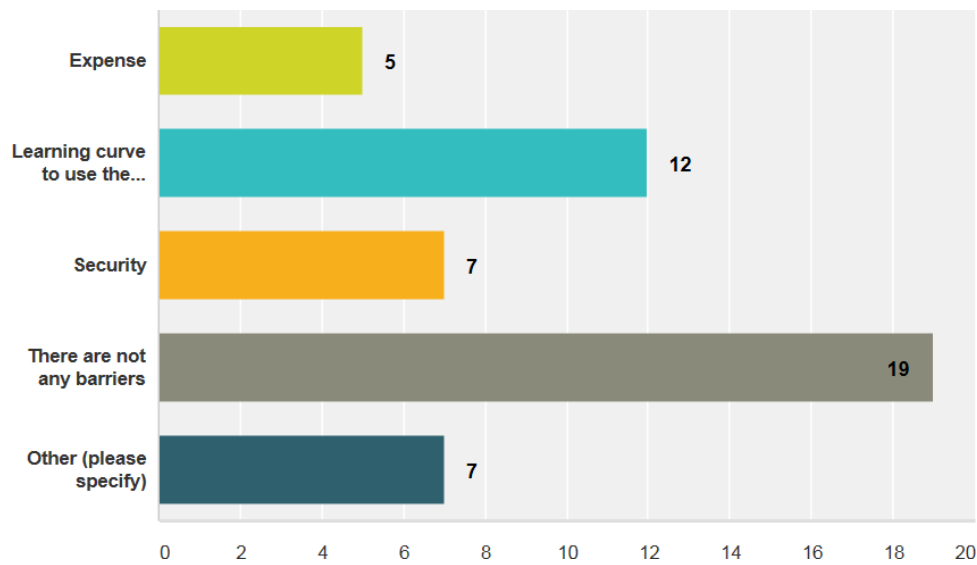
Answer Choices	Responses
Yes	33.33% 12
Possibly, but only if I knew that it would be enforced	22.22% 8
Possibly, but only if I could remain anonymous	16.67% 6
No, not at all	27.78% 10
Total	36

Comments

Eleven contractors included additional comments related to this question. They are as follows:

1. Possibly, but only if I could remain anonymous. Enforcement is almost non-existent.
2. Contractors not pulling permits are hurting our business. I would like to stay anonymous but they are getting the jobs because our work includes permits and HERS rating testing and theirs does not. It is frankly unfair to allow installations without permits. The permitting process is also painful to those following the rules. It seems that when there is an issue with something they are tougher on those following the rules than those not pulling permits.
3. I am not in business to turn in other contractors. I am in business to serve my customers. So many times I've sat through meetings and talks where the guys at the state level want the 3% of contractors actually pulling permits to play cop on the rest of the guys not pulling permits. It doesn't interest me. I'm going to do my thing and let the next guy do his.
4. If you want all contractors to pull permits on all projects, you require proof of permit at point of sale. Done.
5. Our biggest complaint is all the heat 'em & cheat 'em contractors that don't pull permits and lowball the price because of this. The consumer usually gets cheated.
6. The only reason why a contractor does not pull a permit is because of the pain of the building department and then waiting and waiting for the inspector to show.
7. There are circumstances where the owner is responsible for the permitting costs. As a contractor, cannot police if your client is in compliance.
8. There's already too much big brother.
9. This is a HUGE problem in our industry. Most jurisdictions don't seem to want to follow up.
10. This is the MAJOR problem in our industry. Competing against all the unlicensed and guys doing cheap equipment only and not pulling permits.
11. We don't have time to police everyone and we mind our own business. No company pulls a permit 100% of the time.

What barriers would prevent you from using an online permitting system? Check all that apply



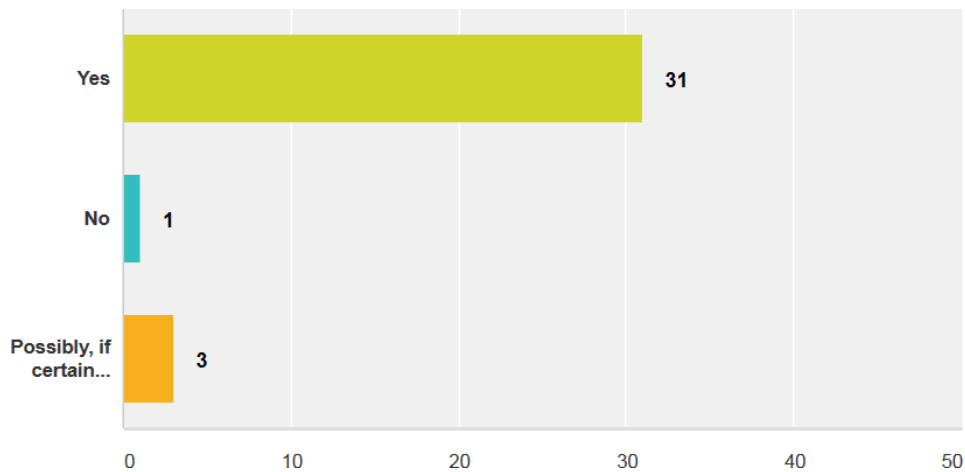
Answer Choices	Responses
Expense	14.29% 5
Learning curve to use the system	34.29% 12
Security	20.00% 7
There are not any barriers	54.29% 19
Other (please specify)	20.00% 7
Total Respondents: 35	

Other

Six contractors also included other barriers. These included:

1. As I mentioned above, each city has a different format and little items that make them different. For instance, the City of Santa Ana always has you pull an electrical permit with the mechanical. A lot of the cities make you do a plot plan for the condenser location.
2. How much more? \$50/permit and up just won't happen.
3. How to register HERS rating registration.
4. Needs to be easy & streamlined.
5. Not enough information to answer the question. Are permits generated instantly? Is there a waiting period? Would cost be 10%, 40%, 75% more than at the counter? Would ACL certs be linked in for a one stop shop?
6. On the phones everything is complicated already.

Would the idea of using a standardized online HVAC permitting system in every jurisdiction across the State of California be appealing to you?



Answer Choices	Responses
Yes	88.57% 31
No	2.86% 1
Possibly, if certain conditions were met	8.57% 3
Total	35

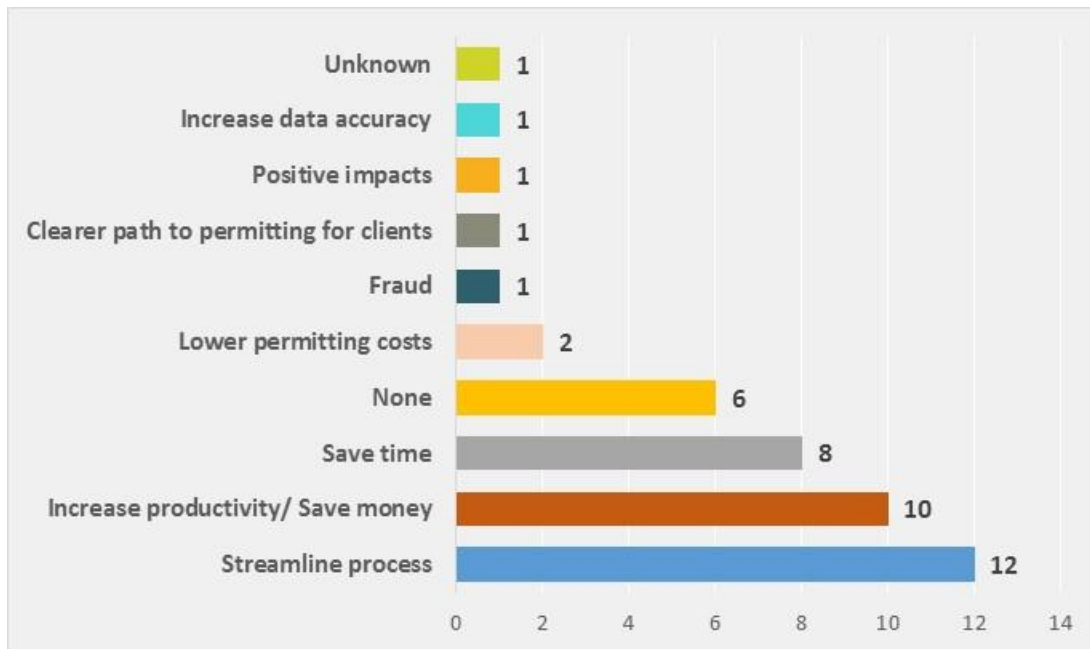
Comments

Five contractors included additional comments related to this question. They are as follows:

1. Consistency is one of the major issues
2. I would pull more permits daily from jobsites.
3. If it is simple, intuitive and well organized.
4. Instead of each city with their fiefdom, standardize the requirements too.
5. Jurisdictions are too different in what they want.

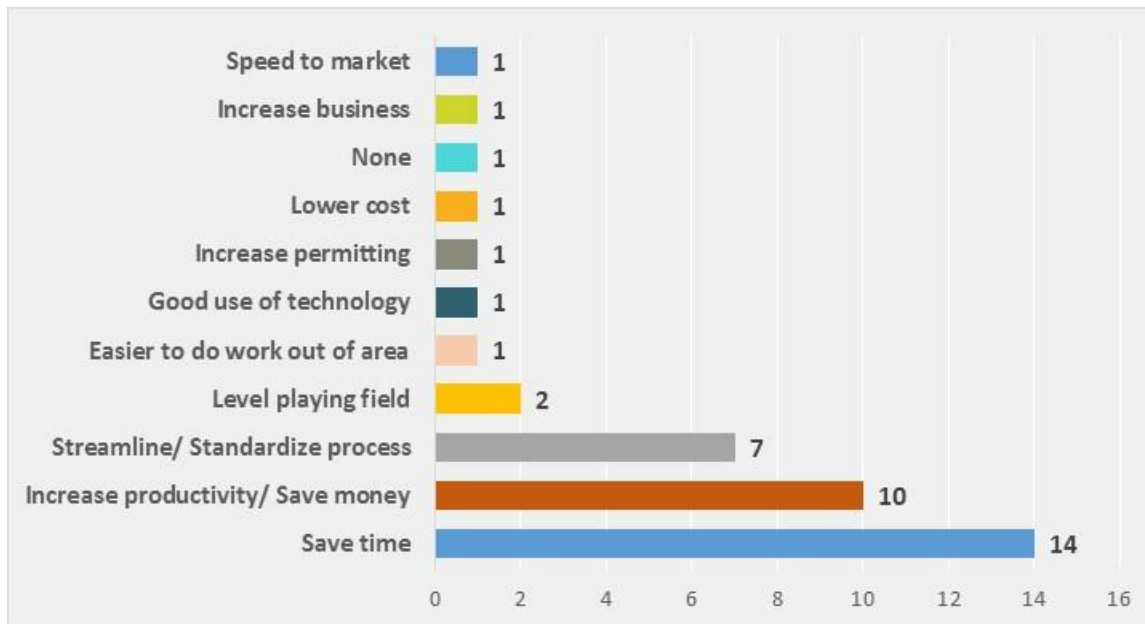
What kind of impacts on your business, if any, would you expect to see due to the creation of a statewide online permitting system?

The 30 responses to this question fell into 10 categories as shown in the Figure below.



What are some potential benefits that you would expect to gain from a statewide online permitting system?

The 27 responses to this question fell into 11 categories as shown in the Figure below.



What are some concerns that you would have about a statewide online permitting system?

Twenty-two contractors responded to this question. Six contractors indicated that they had no concerns. Three indicated concerns regarding fraud and system security; and two indicated concern that cities would want to retain control. The rest of the reasons that were mentioned by one contractor include:

1. Confidentiality
2. Cost
3. Enforcement of codes and contractors
4. Hard to use
5. Most jurisdictions in my area require a site map with sound data for condenser locations. I don't know how this would be integrated.
6. Proper implementation.
7. System performance
8. System complexity

One contractor also asked: Would different jurisdictions include business license fees with the permits to ease that process also?

Do you see any value for either contractors or customers in pulling permits for HVAC add-ons or replacements? Why or why not?

Of the 28 contractors that responded to this question, all but three indicated they saw value in pulling permits. Contractors included the following benefits of permits:

1. It gives a homeowner piece of mind about the work done.
2. Keeps us compliant
3. Levels the playing field
4. Permits help keep contractors' workmanship at a higher standard.
5. Public safety and some modicum of installation quality
6. Safety
7. Sometimes yes. But with all the new restrictions in place it gets harder to justify. HVAC is already the most expensive appliance in the house. Now we add on duct testing with a third-party inspection. Then building official to inspect with no set time to show up. By the time all is said and done the homeowner has to miss 3-4 days of work to have a/c. All for a permit.
8. The intent is to uphold a minimum standard. In HVAC you are dealing with an invisible product being hot & cold air. I think to truly uphold a minimum standard in HVAC, special training & tools are required.
9. The law states a permit is required. When licensed or unlicensed contractors perform work not governed by the same rules, substandard work is performed for the clients without any knowledge of the code requirements. The cost of permits and HERS verification add approximately \$600-800 per installation. Clearly, it's not a level playing field when we conform to the requirements and others do not.
10. The only value I see is (1) it's following the law and (2) it's nice to have another set of eyes checking installers work. Especially on the heating side.
11. They might be a mistake in the application if a customer or contractor applied for the permit.

Do you have any other comments related to online permitting systems?

Additional comments contractors provided include:

1. An online system would be GREAT but enforcement is still the biggest issue. Why have regulations if you don't have the staff to enforce? There should be a penalty both for the contractor AND the building owner. It would also be great to have an online system for contractors to report on addresses they bid work for but did not win. That way the state could check to see if another contractor pulled the necessary permits.
2. Consumers need to be educated that these AND Load calls AND HERS testing are LAW and in their best interest.
3. Could be a valuable resource
4. Get it done.
5. It's a dream. The permitting office sometimes after going there for 4-6 hours makes you come back because you didn't have a letter from the Contracting license holder (even when you are the CEO of the firm and can prove it with a business card and the state franchise authority.) ridiculous - they have too much power (or act as if they do). I'm all for a statewide permitting system.
6. It's a great idea.
7. No just do it!!!
8. Online permitting systems will not make contractors pull more permits. Proof of permits at point of sale of equipment will make contractors comply with permit laws as well as minimum code.
9. The permit process is getting far too complicated.
10. Permitting now has a cost of approx. \$1,400.00 per project. This is way out of line.
11. I really do not understand why it is not in place already.
12. There should be a requirement for the contractor to perform a load calculation on each and every job.
13. This is needed!