SolarAPP's Online Permitting Portal

In 2018, the Solar Automated Permit Processing (SolarAPP) campaign was founded with the intent to streamline permitting, inspection and interconnection processes and impacts, thereby aiming to reduce soft costs by $1/W for residential solar and solar plus storage customers. The campaign was founded by the Solar Foundation and Solar Energy Industries Association (SEIA) in collaboration with the National Renewable Energy Laboratory (NREL), solar stakeholders, and authorities having jurisdiction (AHJs) across the country. Together, we have identified the digitization of external approval processes as the fastest route to improvement.

With the support of the DOE's Office of Technology Transitions, we are developing a flexible, web-based portal that can process residential solar and solar plus storage permit applications and inspections at no cost to an AHJ.

What could the online portal do?

We are still working on the details with campaign participants and we want your help! The following bullets summarize our main objectives, but we welcome feedback from stakeholders across the solar landscape. Currently, the campaign aims for the portal to:

- Standardize instant permitting and virtual inspection for residential solar and solar plus storage, with potential for including additional advanced home technologies if funding allows
- Enable instant permitting, online fee payment, virtual (i.e. photo and video) inspections, inspection record tracking, and a variety of inspection models, including audits
- Organize and evaluate standardized applications, questions, and single line diagrams based on code year
- Stand alone as the sole online system for an AHJ or integrate with current backend government, utility, and installer databases like Accela, GovPilot, Salesforce, PowerClerk and more
- Unify national registries of contractor licenses and component certifications for compliance and educational purposes
- Incorporate a library of resources and training from entities like the International Code Commission (ICC), Interstate Renewable Energy Council (IREC), International Association of Electrical Inspectors (IAEI), and more

What are the benefits of the portal?

Online and instant permitting is common practice for many localities in the US, but not quite widespread because of start up costs that can climb as high as $100,000. Where online and instant permitting has been enabled, AHJs are able to shift the focus of their employees to post-installation and inspection, wasting no time on projects that end up cancelling before install. Efficiency is gained, human error is reduced, and safety outcomes stay stable or improve. When installation timelines improve, cancellation rates go down and adoption goes up, thus expanding AHJ revenues from permitting and inspection fees as the local solar market grows.

Learning from existing best practices

Instant, online permitting is already available and proven throughout the United States. Some examples include:

- NV: The City of Las Vegas and Clark County produce online, instant permits via a registration model very much like what is available in Germany and Australia. After the project address, proposed system capacity, and installer information is entered, contractors pay a fee and are instantly provided a printable permit.
- CA/NY/SC/FL: Several major jurisdictions across these states, including the Cities of Los Angeles and New York, provide instant permits after installers enter full design and component details. It's not exactly registration, but it still produces instant permits and that is what matters most when attempting to improve costs and increase adoption rates!
- TX: Several jurisdictions have no permitting processes at all and fully rely on inspection for safety assurance.

Working together to improve soft costs via a national, open source permitting portal is not just smart, it is the right thing to do for our communities and our future. We look forward to accomplishing this goal with you!

This resource is brought to you by the SolarAPP campaign, led by: