

Property owners in historic districts often anticipate a certain amount of red tape when it comes to making alterations to their properties. These same property owners also often expect contemporary technology, such as solar panels, to be prohibited and therefore outside of their reach. This mistaken assumption is often times the result of ambiguity in local historic preservation polices, codes and standards. Therefore, whether the regulatory barriers are perceived or real, navigating through an inefficient and unclear design review process can quickly lead to false assumptions, escalating frustrations and expensive project soft costs for property owners. On the other hand clear, concise and streamlined processes for the installation of solar energy systems in designated historic districts allow communities to manage the expectations of the property owners while supplying proper technical support to the local historic preservation commission members.

Local governments across the nation are working to manage the expectations of property owners by developing clear processes for installing solar energy systems in historic districts. Portland, Oklahoma City, San Antonio, Santa Monica and Boulder are just a few cities tackling the topic of property owner expectation's and historic preservation policies within their communities. For the purposes of this case study, the policies and circumstances of Portland, Oregon and Oklahoma City, Oklahoma will be highlighted for further review.

The city of Portland, Oregon has some of the most transparent local government policies, codes and standards for the installation of solar energy systems in historic and conservation districts in the nation. Other communities, such as Oklahoma City, Oklahoma have updated entire historic district design guidelines to provide a holistic view of sustainable historic preservation, and in turn outline solar energy system installation design and review.

In these instances, Portland and Oklahoma City historic property owners now have a clear understanding of what solar energy installations can be approved on the municipal staff level, which installations require full historic preservation commission review, and which applications are likely to be approved or denied for installation.

Portland, Oregon

The "Solarize Portland" program, a solar panel volume-purchasing program led by neighborhood associations, served as a catalyst for policy change beginning in 2009. The program was supported by the U.S. Department of Energy Solar America Cities program and the City of Portland Bureau of Planning and Sustainability. Additional program partners, which included neighborhood coalition offices, Solar Oregon and the Energy Trust of Oregon, collaborated with the Solarize Portland program to quickly develop a robust offering of technical assistance, project planning, rebate implementation and community organization.ⁱ



Figure 1 Solar energy system installed as part of the Solarize Portland Program. Photo courtesy of Imagine Energy

Neighborhood-based in its very nature, the momentum of the Solarize Portland program “...led a greater number of homeowners into murky waters.” said Lizzie Rubado, a Renewable Energy Specialist with The City of Portland. While the issue of historic preservation and solar installations had previously been under the radar in Portland, the Solarize Portland program brought the issue to the forefront of community dialogs. “What and where are these districts?” or “Why do I have to go through a review process?” were just a couple of the initial questions asked by property owners attending Solarize Portland neighborhood meetings.

Property owners participating in the Solarize Portland program learned that neighborhoods with historic resources, designated by the City of Portland, are

separated into two categories which are then regulated by the municipal Zoning Code. The largest category is composed of the city’s fourteen Historic Districts, all of which are listed on the National Register of Historic Places. Historic Districts are generally defined as a concentration of thematically similar and historically significant architectural resources, both residential and commercial in nature. These resources are typically deemed important on a local, state, regional or national level.

The second category is composed of seven Conservation Districts. As with Historic Districts, these areas contain a concentration of significant historic resources for the city. There are two primary factors separating these seven districts from the fourteen designated Historic Districts. The level of historic significance is generally lower in these neighborhoods, and the resources are primarily nominated for their local or neighborhood significance, rather than on state, regional or national significance. Outside the defined district boundaries of both Conservation and Historic District neighborhoods, are the individual designation of Conservation Landmarks and Historic Landmarks.

After the initial questions surrounding the composition of historic and conservation districts were addressed, neighborhood associations and the City of Portland worked through additional concerns such as: “How do we feel as a community about solar panels on our older homes?”, “What installations can be approved with staff review versus board review?” and “How

can we make this process as clear as possible?"

"The first "Solarize" campaign started as a grassroots effort to help residents of Portland, Oregon, overcome the financial and logistical barriers to installing solar power. What began in one neighborhood as "Solarize Southeast!" quickly caught on with residents across the city..." -Solarize Guidebook, 2012

On average, Portland receives ten applications for solar permits in Historic or Conservation Districts annually. The new code developed through this process eliminates the design review requirement for property owners in Conservation Districts whose projects comply with Community Design Standards. This code also complies with Oregon House Bill 3516, which was enacted around the same time by the state legislature. Prior to current standards and guidelines, the City of Portland's Zoning Code required all new solar installations to undergo a Historic Design Review through the Landmarks Commission. The Community Design Standards are reviewed through the city's building permit process, and generally specify that solar panels must be installed parallel to the plane of the roofline and must not increase the footprint or height of the structure.ⁱⁱ

A Historic Design Review process is still required for solar projects on Historic or Conservation Landmarks, projects in Historic Districts or projects in Conservation Districts that are not compliant with the Community Design Standards. For projects required to undergo this review, the City of Portland

has created a web site entitled "Solar and Your Historic Home" to help residents more easily and efficiently navigate the process.ⁱⁱⁱ The current statutes and guidelines surrounding the integration of solar energy and historic resources now serve to provide clarity to property owners in a city with more than twenty one Historic and Conservation Districts.

Oklahoma City, Oklahoma

While it is perhaps the most sophisticated example of solar energy installation guidance within historically significant neighborhoods, Portland is not alone. During the 43 years since the Oklahoma City, Oklahoma Historic Preservation Ordinance was enacted the community has received roughly five requests for the installation of solar panels on historic resources. This limited number of applications did not however mean the city ignored the topic of solar and historic preservation.

Solar energy installations not visible from the public right-of-way were permitted in the city's Historic Districts under the more recent 2003 [*Preservation Guidelines and Standards for Oklahoma City Historic Districts*](#). However, there was not an established mechanism for administrative review of solar energy systems, or a clear definition of which solar energy installations on historically designated properties would be approved.

Property owners using the previous 2003 *Guidelines* to plan for solar energy systems asked the city for further guidance on which specific types of solar

energy system installations would require approval by the review board.

The number of applications for solar energy system installations may increase in accordance with new guidelines released earlier this year. Effective August 1, 2012, the new [Historic Preservation Design and Sustainability Standards and Guidelines](#) include a comprehensive environmental approach. “The basic idea is to be of a conservation mind while also making a commitment to preserve historic resources.” said Catherine Montgomery, former Historic Preservation Architect for the City of Oklahoma City.

Oklahoma City residents applying for the installation of solar energy systems which meet pre-approved criteria are allowed to undergo a shorter administrative review process, rather than a potentially lengthy Historic Preservation Commission review process.

Qualifying systems are those that lay flat on the back facing roof slope and are not visible from the public right-of-way or from streets including side streets for corner or interior lots; or those installed in back yards, as long as the height of the panel and the mounting system combined is less than six feet tall and they are not visible from the public right-of-way and adjacent properties.^{iv} The 2012 *Guidelines* provide valuable insight as to which solar energy system installations would be eligible for administrative review in lieu of review by the Historic Preservation Commission. This can potentially save homeowners valuable time and money throughout the design and planning stages of their project.

Significance

While installing solar panels in historic districts can be challenging, the success of Portland and Oklahoma City show that it can be done and done well. Effective integration of solar energy systems and historic properties can be achieved by other cities and towns with best practices gleaned from these communities.

To start on the right path, communities should hold multiple public forums to engage stakeholders in the early stages of developing solar energy and historic preservation policies and standards.



Figure 2 Preservation Standards and Guidelines for Oklahoma City detail which solar energy installations may be administratively reviewed and approved. Imagine courtesy of Oklahoma City, Oklahoma.

Stakeholder sets should include historic district property owners, local preservation commissions, solar installation companies, easement holders, local and state non-profit organizations, trade associations and local, state and federal historic preservation agencies.

Second, communities should define the scope of review and establish what may be “off limits”. In this area, questions to consider should include:

- Are the local historic design preservation guidelines to undergo a comprehensive revision or is the addition of a chapter on solar panels sufficient?
- Is there a need to update the local preservation ordinance to comply with a state solar access law?
- Are there varying levels of review for solar panels we wish to adopt?
- How do we ensure the historic preservation commission members have the necessary resources and training to properly review solar energy applications?

Some of these questions will be answered by a community’s available resources and others by a community’s historic preservation philosophy.

Lastly, policy makers should consider that there is almost never a one-size-fits-all model when it comes to any historic preservation topic. Given this basic premise, municipalities should not be afraid to choose the best policies for their historic districts. The Portland and Oklahoma City processes described here are intended to serve as examples of

policy design and implementation specifically planned for each respective community. While dramatically different, both local governments developed methodologies intended to manage the expectations of property owners. If other cities, towns and municipalities implement guidance which provides clarity and certainty to local residents while maintaining the integrity of historic resources, they too should experience similar success.

Additional Resources:

City of Boulder. “Green Points Guidelines.”

http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=208&Itemid=489#FORMS

City of Santa Monica. “Zoning Ordinance Standards for the Installation of Solar Energy Systems.”

http://www.solarsantamonica.com/documents/SolarOrdinancematerials8.14.09_000.pdf

Kimberly Kooles, Patrice Frey, and Julia Miller. “Installing Solar Panels on Historic Buildings.”

http://ncsc.ncsu.edu/wp-content/uploads/Installing-Solar-Panels-on-Historic-Buildings_FINAL_2012.pdf

Kris Zebrowski and Scott Kertesz. “Building a Solar-Powered Home in a Historic Neighborhood.”

http://www.buildsagreen.org/wp-content/uploads/2012/09/Case_Study_FINAL.pdf

ⁱ Linda Irvine, Alexandra Sawyer and Jennifer Grove. "The Solarize Guidebook: A community guide to the collective purchasing of residential PV systems." May 2012.

<http://www.nrel.gov/docs/fy12osti/54738.pdf>

ⁱⁱ City of Portland. "Solar and Your Historic Home". Accessed on November 30, 2012.

<http://www.portlandoregon.gov/bps/article/324757>

ⁱⁱⁱ Ibid.

^{iv} City of Oklahoma City. "Oklahoma City Historic Preservation Design & Sustainability Standards and Guidelines." August 1, 2012.

http://www.okc.gov/planning/hp/documents/GreenGuidelines_Aug2012.pdf

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