



How Cities Can Support the Expansion of Solar

WHAT IS SOLSMART AND SOLARAPP+?



Introduction

The Great Lakes Renewable Energy Association (GLREA) is a statewide non-profit organization working to expand renewable energy in Michigan. One of our important programs is to work with local units of government to support their efforts of encouraging homeowners and businesses to install their own solar energy systems. This involves educating community members about the benefits of solar and the process to purchase their own energy system. To help support these efforts, GLREA is working with local units of government to embrace the Solsmart program, which is a national program that encourages local governments to make some changes that will make their community more supportive of the adoption of solar energy.

GLREA is also working with local units of government to adopt and utilize the SolarApp+ permitting software that is designed to stream-line the permitting process to make it easier to issue a permit for building a solar energy system and easier for a solar installer to obtain that permit.

The Great Lakes Renewable Energy Association is a resource to help make your community solar ready. We look forward to working with you.

SolSmart is a national program initiated and funded by the Department of Energy (DOE) and led by the International City and County Management Association (ICMA), the Interstate Renewable Energy Council (IREC), and teams of partners with expert understanding in solar energy and local governments. The Program helps communities, businesses, and homeowners to obtain solar by making it a fast, easy, and affordable process.

SolSmart supports and recognizes cities, counties, local governments, and regional organizations to reduce barriers to obtaining solar, like permitting, interconnection, education, and funding. The Program also provides no-cost technical assistance from a team of national experts and can even assign SolSmart advisors to help advise the communities on how to best implement solar.

To take advantage of the help SolSmart provides, a community needs to simply [request a consultation](#)¹ with a technical assistance provider for either in-person or remote assistance to get started. SolSmart holds in-person presentations across the country to provide information on local or regional solar challenges and solutions, as well as opportunities available. Remote assistance includes communication with your community's SolSmart technical assistance provider via email, one-on-one phone calls, or group conference calls. Other resources available to get started include subject matter webinars, the [online resource catalog](#)², and the [SolSmart Hotline](#)³.

[SolSmart Advisors](#)⁴ are fully funded, highly trained, and experienced staff assigned and ready to help communities take these first steps of designation and guide them to success in using the SolSmart program.

Recently, as part of the Justice40 Initiative, IREC launched the SolSmart Engagement Partners program to encourage disenfranchised and underserved communities into the SolSmart program. Organizations can apply to suggest "priority communities," which are defined as a city, town, or county government where at least 50% of the census tracts within its borders are deemed disadvantaged according to the [DOE](#)⁵. After an initial consultation and plan to implement SolSmart objectives, the community receives no-cost technical assistance through the program to adopt practices that will allow them to deploy solar energy. IREC also provides organizations that recruit a priority community with training and education on solar energy and the SolSmart program.

The SolSmart Program does not have direct funds to provide to communities, instead it offers technical assistance from national solar experts at no charge to communities.

SolSmart Cities in Michigan



Base layer: STC Equalization GIS, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
Cities layer: National Atlas of the United States, (2013), Cities and Towns of the United States, 2014.
SolSmart Data: <https://solmart.org/our-communities>
Map layout: Chloe Brash, 5/17/2023

The Program awards community's points using objective criteria for removing obstacles to solar energy development. In acknowledging their achievements, SolSmart communities receive designations based on this point system of SolSmart Platinum, Gold, Silver, or Bronze. [The designation process](#)⁶ is made simple by the no-cost consultation and the help of technical assistance providers.

1. <https://solmart.org/designation-criteria>
2. <https://solmart.org/resources/>
3. <https://solmart.org/contact>
4. <https://solmart.org/our-team>
5. <https://energyjustice.egs.anl.gov/>
6. <https://solmart.org/designation-criteria>



SolSmart Designation

Designees must meet requirements across the five categories of the SolSmart criteria:

1. Permitting and Inspection

These requirements provide solar developers and installers with a transparent, efficient, and cost-effective approval process.

Example: Post an online statement confirming three-business day turnaround time for residential rooftop solar PV

2. Planning and Zoning

Require government plans to set forth a vision for the community's clean energy future, and zoning codes should provide clear and transparent regulations on the development and use of solar energy within the jurisdiction.

Example: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development (height restrictions, visibility restrictions, screening requirements, etc.)

3. Government Operations

These criteria map out ways that jurisdictions can utilize government processes and infrastructure to increase solar capacity and engage community members on solar energy.

Example: Install solar PV on local government facilities or government-controlled land.

4. Community Engagement

Require local governments to provide clear, high-quality information, public education, and inclusive engagement opportunities to help residents and businesses interested in solar energy make informed decisions.

Example: Establish partnerships with local community-based organizations or other organizations focused on serving disadvantaged communities to define your community's solar equity goals, develop implementation strategies, and establish a plan for tracking and reporting on progress

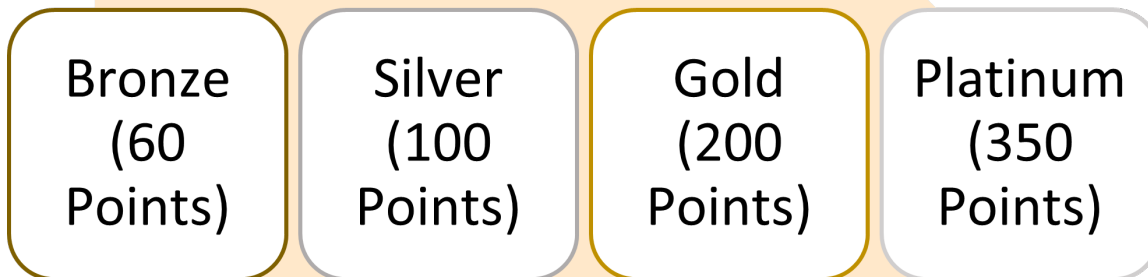
5. Market Development.

Utilize methods to make solar more affordable for homes and businesses while improving business opportunities for solar installers.

Example: Support a community-wide group purchase program (e.g., A Solarize Program)



SolSmart Designation



To be considered for all levels of designation, communities must meet the overall program prerequisites, which include completing a solar statement, solar permitting checklist, and a zoning review. They must also reach the point requirements through a mixture of required and elective activities. Examples of elective activities include things like ensuring zoning ordinances for large-scale solar include a native perennial vegetation standard, requirements for new local government facilities and retrofits to meet a threshold to be solar-ready and posting online resources about residential solar PV financing options and incentives, among others.

To qualify for the SolSmart **Bronze** designation, a community must meet the initial program prerequisites (completing a solar statement, solar permitting checklist, and a zoning review). Additionally, Communities then need to earn 20 points in 1. Permitting and Inspection and 2. Planning and Zoning categories and receive 20 points within the remaining categories for a total of 60 points.

To qualify for the SolSmart **Silver** designation, a community must meet the requirements for SolSmart Bronze. Communities then need to earn additional points in 1. Permitting and Inspection, 2. Planning and Zoning, and 3. Community engagement and earn a total of 100 points within the five categories mentioned above (40 points beyond the Bronze level).

To qualify for the SolSmart **Gold** designation, a community must meet the requirements for SolSmart Silver. Communities then need additional credits in 1. Permitting and Inspection and 2. Planning and Zoning and earn a total of 200 points across all five categories.

To qualify for SolSmart **Platinum** designation, a community must meet the requirements for SolSmart Gold. Communities then need to earn additional credits in 1. Permitting and Inspection, 2. Government Operations, and 3. Community Engagement and earn a total of 350 points across all five categories.



SolSmart Designation

These SolSmart **designations bring many benefits**⁷ to local governments and the local solar industry. With a SolSmart designation, local governments can start saving money by making the approval process more efficient and helping communities better manage tight budgets and limited taxpayer resources.

This Program can also help grow the local economy by allowing economic developmental impacts like improving business prospects for solar companies, the creation of new jobs, and lower electric bills.

Some SolSmart criteria require communities to organize group purchase campaigns to reduce solar costs for residents, and reduce barriers to solar energy for renters, multifamily buildings, or low-income neighborhoods.

Furthermore, clean energy allows for cleaner air and is less dependent on fossil fuels, which helps **improve the health and wellbeing**⁸ of community members for generations.

With the option for elective criteria, communities can customize their SolSmart point portfolio to best fit their needs.

SolSmart communities also receive national recognition and the opportunity for awards to further distinguish the community from others.

The SolSmart National Designation Program allows all cities, counties, and regional organizations to be eligible to join and receive the many benefits of the designation.

SolarAPP+

SolarAPP+, short for Solar Automated Permit Processing, is a tool developed by the National Renewable Energy Laboratory (NREL), in collaboration with Authorities Having Jurisdiction (e.g., local governments, fire marshals, electrical inspectors, etc.) Solar Energy Industries Association, and many others. This standardized plan review software helps qualified businesses or individuals by running compliance checks and cutting down the time frame of the permitting process.

SolarAPP+ is an online web portal that automates the plan review and process for issuing permits to install code-compliant residential photovoltaic (PV) systems. This tool uses inputs provided by the contractor to then automatically perform a compliance check to make sure the proposed system is safe and code compliant. Next, installation practices, workmanship, and adherence to the approved design are then verified by the Authorities Having Jurisdiction (AHJ) throughout the inspection process.

⁷ <https://solsmart.org/why-solmart>

⁸ <https://www.hsph.harvard.edu/c-change/subtopics/fossil-fuels-health/>



This platform's purpose is to reduce the cost and decrease the time of solar installation. SolarAPP+ makes this possible by offering its service at a low-cost to local governments across the country. To take advantage of the help SolarAPP+ provides, one would simply [register for an account to get started](#)⁹. Once an account has been made, an installer can apply with the design specifications and SolarAPP+ will check the application to ensure the design is code compliant and will then issue the permit. Installers also pay the city or county's permitting fee in the app, alongside a \$25 SolarAPP+ fee. This entire process is made quick and easy and significantly cuts down the permitting process.

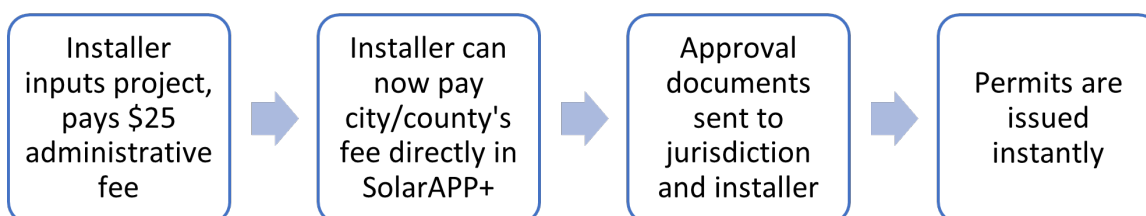
SolarAPP+ is adaptable and offers two adoption options to best meet the needs of different jurisdictions. [The Stand-Alone Model](#)¹⁰ is for email, mail, and in-person jurisdictions and the Integration Model is for jurisdictions already using some type of online permitting portal.

9. <https://help.solar-app.org/article/81-basic-account-help-registering-a-new-account>

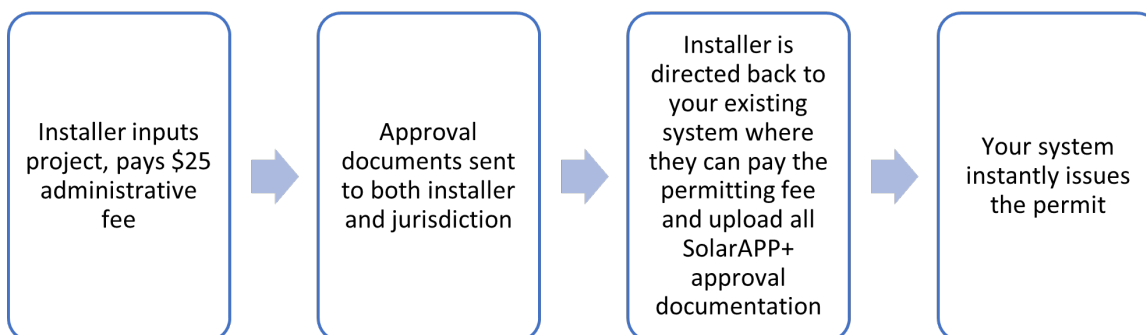
10. <https://help.solar-app.org/article/48-integration-model-vs-standalone-model>

SolarAPP+ Permitting Processes

Stand-Alone Model (for jurisdictions who only accept applications via email, mail, or in person):



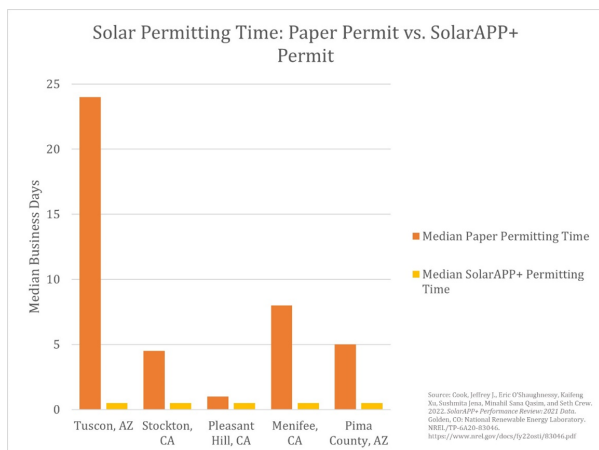
Integration Model (for jurisdiction already using an online permitting portal):



Implementing SolarAPP+ in your community is made simple and easy within the online web portal by using these four main steps. First, be sure to select the right Model, either Stand-Alone or Integration, and then input local settings unique to your jurisdiction, including permitting contacts, Authorities Having Jurisdiction (AHJ) boundaries, and local wind and snow variables. Next, set up an instant permit workflow that is tailored to your Model. Finally, invite one-to-three installers to use your SolarAPP permitting process and open SolarAPP+ permitting to all installers to launch.



SolarAPP+ Permitting Processes



In 2022, The National Renewable Energy Laboratory (NREL) released a [SolarAPP+ Performance Review¹¹](#) that found the software had eliminated 134,000 days of delays for solar adoption. Between 2021-2022, the number of communities that had launched or piloted SolarAPP+ grew from 13 to 31, and 90 communities were testing the app. The report also finds that SolarAPP+ shortens project timelines by 13 business days and were 29% less likely to fail inspections than traditionally permitted projects. Furthermore, SolarAPP+ processed 11,000 permits in 2022, a 300% increase from the year before. This increase translates to local jurisdictions saving roughly 10,000 hours of staff time.

This low-cost permitting software provides [many benefits¹²](#) to local governments making it easier for local governments to quickly and safely approve standardized rooftop projects for solar panel installation. SolarAPP+ provides automated permitting that allows for major growth within the solar industry.

11. <https://www.energy.gov/eere/solar/articles/annual-report-use-solarapp-doubles-across-country>

12. https://solarapp.nrel.gov/docs/SolarAPP_Benefits_Memo.pdf

How SolSmart and SolarAPP+ Work Together

Given the scope of each program, SolSmart and SolarAPP+ complement each other well. SolSmart gives jurisdictions steps to gain Bronze, Silver, Gold, and Platinum designation, while governments can utilize SolarAPP+ as a tool to streamline and accelerate the designation process. Utilizing SolarAPP+ also gives jurisdictions a significant number of required credits for SolSmart.

Furthermore, one of the requirements for achieving platinum SolSmart status is utilizing a pathway for instant approval of residential rooftop solar systems. The SolSmart guidebook specifies SolarAPP+ as a way for jurisdictions to achieve this requirement. Additionally, governments receive 5 SolSmart credit points for simply receiving a demonstration of an instant approval platform such as SolarAPP+. Utilizing SolarAPP+ provides SolSmart communities with an easy way to achieve higher designations and to implement more solar infrastructure.

Conclusion

This document is intended to introduce these two important programs, that if adopted would make your community more solar ready and would facilitate the expansion of solar energy with your residents and businesses.

If you ever have any questions, please don't hesitate to contact Chloe Brush at chlobru@umich.edu. If we don't know the answer, then we will connect you with someone who does.

We look forward to working with you.

