

April 10, 2024

Representative Patty Acomb  
Chair, Climate and Energy Finance and Policy Committee  
593 State Office Building  
St. Paul, MN 55155

Senator Nick Frentz  
Chair, Energy, Utilities, Environment, and Climate Committee  
95 University Avenue W.  
Minnesota Senate Bldg., Room 3109  
St. Paul, MN 55155

CC:

Representative Ned Carroll  
565 State Office Building  
St. Paul, MN 55155

Senator Lindsey Port  
95 University Avenue W.  
Minnesota Senate Bldg., Room 3213

Dear Representative Acomb and Senator Frentz,

CC Representative Carroll and Senator Port,

Since September 2019, the National Renewable Energy Laboratory (NREL), a Federally Funded Research and Development Center within the United States Department of Energy, has developed the Solar Automated Permit Processing Plus (SolarAPP+), an instant online permitting platform for code compliant residential solar systems. This letter describes the development of the platform, its capabilities, and impact.

Permitting costs and delays are a significant component of the install cost for residential rooftop solar systems. In Minnesota, NREL collected data show it takes 10 days at the median to receive an approved permit, with many solar projects taking several weeks or months.

SolarAPP+ is designed to take permitting timelines from weeks to minutes, for eligible residential rooftop solar systems, allowing more solar to be installed. Additionally, SolarAPP+ has reduced the resources all parties devote to permitting solar systems, further spurring solar development.

Since the launch of SolarAPP+ in July 2021, over 240 jurisdictions have signed up for the platform. Nationwide, 795 installers have used the platform to permit over 40,000 systems.

SolarAPP+ requires the contractor to demonstrate code compliance through a combination of design inputs and file uploads. The software then determines the system's code compliance and issues an approved plan and/or permit in line with permitting requirements and the electrical and building codes. The tool is offered at no cost to local governments that wish to adopt. If the proposed solar system is not up to code, SolarAPP+ will reject the permit application and the contractor may revise and resubmit instantly.

NREL developed the code compliance checks embedded within the software through a collaborative effort including code and standards entities, the solar industry, and local governments. More specifically, we partnered with the International Code Council (ICC), which develops the code behind the Minnesota Residential and Fire Codes, the National Fire Protection Association (NFPA), which develops the code behind the Minnesota Electrical Code, UL, which develops the standards for the equipment that make up a solar energy system (e.g., solar modules), and the International Association of Electrical Inspectors (IAEI).

NREL and our partners look forward to working with any community interested in adopting the software to reduce permitting times and workloads. If I can provide additional information about SolarAPP+, our team would be happy to arrange a meeting and answer any questions.

Sincerely,  
Jeff Cook, Ph.D.  
Renewable Energy Policy and Market Analyst  
Strategic Energy Analysis Center  
National Renewable Energy Laboratory