




City of Phoenix

FIRE DEPARTMENT
FIRE PREVENTION DIVISION

Explanatory Policy – Energy Systems

SUBJECT: Energy Systems - Solar Photovoltaic and Battery Energy Storage	EFFECTIVE DATE: November 20, 2019
REFERENCES: The Phoenix Fire Code (2018 Edition) Sections 105.7.2 & 105.7.21	REVIEW DATE: June 2020
APPROVED:	
 John Mertens, Fire Marshal	

Purpose:

The purpose of this policy is to provide the construction permit process and the solar photovoltaic alternating current nameplate rating (A/C) and battery energy storage capacity thresholds for Energy Systems. This permit process is designed to provide efficiency without compromising the safety of the public and emergency responders including firefighters. This policy includes the following Energy Systems: solar photovoltaic and battery energy storage system installations that are regulated by Chapter 12 of the 2018 Phoenix Fire Code.

Policy:

This policy establishes an Over-the-Counter Permit (OTC) process for the installation of Residential Solar Photovoltaic and Battery Energy Storage Systems installed in the city of Phoenix. This over-the-counter permit process establishes the solar photovoltaic A/C nameplate rating threshold and battery capacity that allows the customer to be issued a fire construction permit to install an Energy System without a plan submittal.

The customer/permit holder will be responsible to schedule a fire inspection once the installation is complete, and before connecting to the utility grid. The inspection must be completed by a Phoenix Fire Department Fire Inspector. Energy Systems over the established A/C nameplate rating thresholds or energy storage capacities will require a plan submittal in accordance with the 2018 Phoenix Fire Code; and a construction permit will only be issued once the plans are reviewed and approved. The over-the-counter A/C nameplate rating thresholds and energy capacities are as follows:

Residential Solar Photovoltaic Systems

- 3 kW - 12 kW alternating current nameplate rating Over-the-Counter Permit
- In excess of 12 kW alternating current nameplate rating Plans submittal required



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30 kWh or less system size water heater Over-the-Counter Permit
In excess of 30 kWh system size water heater Plans submittal required

Residential Battery Energy Storage Systems

3 kWh - 20 kWh capacity Over-the-Counter Permit
Capacity in excess of 20 kWh Plans submittal required

An Energy System containing both a solar photovoltaic and a battery energy storage system will be considered an over-the-counter construction permit as long as both systems do not exceed the over-the-counter threshold or capacity. If either energy system is more than the over-the-counter threshold or capacity, a plan submittal is required for that system.

The Fire Prevention Section will meet plan review submittal timelines in accordance with Arizona State A.R.S.

Code Reference:

105.7.2 Battery systems. A construction permit is required to install stationary storage battery systems regulated by Section 1206.

105.7.21 Solar photovoltaic power systems. A construction permit is required to install or modify solar photovoltaic power systems. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.