

ARTICLE 706

ENERGY STORAGE SYSTEMS

Introduction to Article 706—Energy Storage Systems

It is important to understand what Article 706 does and does not apply to. The scope says it applies to all permanently installed energy storage systems “having a capacity greater than 1 kWh.” They may be stand-alone (off-grid) or interactive (grid tied) with other power production sources. Although much of the original language used to create Article 706 came from deleted sections of Article 690 Solar Photovoltaic (PV) Systems, an energy storage system can store energy from any power source, there are no restrictions.

Energy storage systems can include batteries, capacitors, and kinetic energy devices such as flywheels and compressed air. Energy storage systems can include inverters or converters to change voltage levels or to make a change between an alternating-current or a direct-current system.

They may also include inverters and converters to change stored energy into electrical energy. An energy storage system might directly power loads such as in a stand-alone (off-grid) system, or it might provide another energy management function like buffering energy produced by an intermittent source such as a PV system.

Energy storage systems can be (and usually are) connected to other energy sources, such as the local electric utility distribution system. There can be more than one source of power connected to these systems, and their connection to other energy sources must comply with the requirements of Article 705 which provides the rules for installations of one or more power production source operating in parallel with the electric utility.

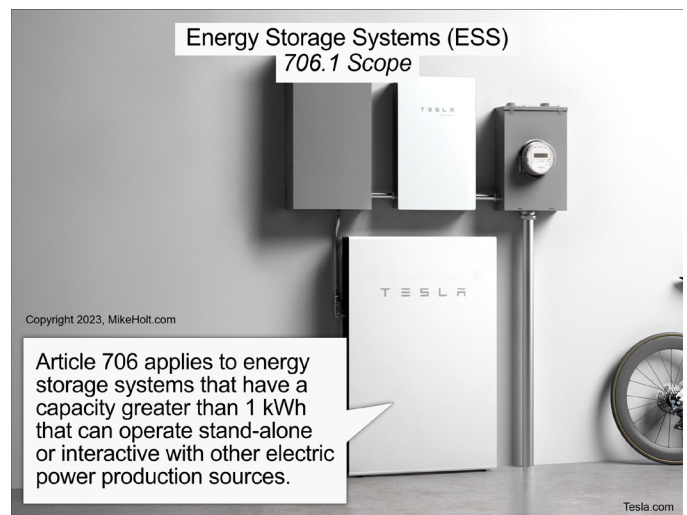
Part I. General

706.1 Scope

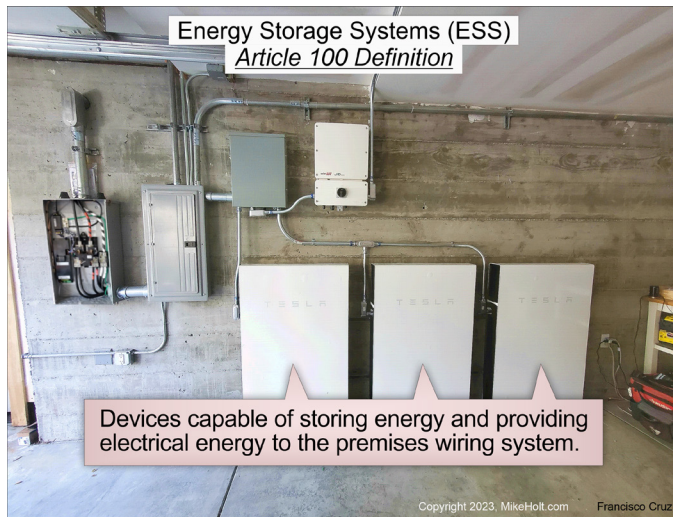
This article applies to energy storage systems that have a capacity greater than 1 kWh that can operate in stand-alone (off-grid) or interactive (grid tied) mode with other electric power production sources.

►Figure 706-1

According to Article 100, an “Energy Storage Systems” (ESS) has one or more devices installed as a system capable of storing energy and providing electrical energy to the premises wiring system. ►Figure 706-2



►Figure 706-1



►Figure 706-2