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(54) **SYSTEMS AND METHODS FOR ELECTRIC
VEHICLE CHARGING POWER
DISTRIBUTION**

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ABSTRACT

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Disclosed herein are systems and methods for power management in an EV charging site. A method may comprise sizing a plurality of electrical feeders. Once the feeders are sized, the site connects a plurality of energy storage systems to the plurality of electrical feeders. Then, the site connects a plurality of electrical loads to the plurality of energy storage systems and to the electrical feeders. Electrical loads of the plurality of electrical loads are interspersed with one or more energy storage systems of the plurality of energy storage systems. Next, for an electrical feeder of the plurality of electrical feeders, the site monitors a current flow at one or more points of connection of the electrical feeder to a load of the plurality of electrical loads. Then, the site provides power from the electrical feeder to the load while maintaining a current or a temperature at the electrical feeder to below a design limit.

