The promotion of electric vehicles (EVs), triggered by environmental concerns, can also increase the flexibility of power systems through ancillary services, such as frequency regulation among others. Nevertheless, EV penetration has increased the concern regarding voltage drops in distribution grids. This concern has motivated researchers to examine EV reactive power provision to mitigate such problems. This work proposes a local market perspective to promote EV reactive power provision, enabling distribution system operators (DSOs) to control the voltage level using cost-effective solutions. We propose the extension of a centralized control framework that schedules EV frequency regulation to optimize the reactive power provided by the same EVs. Additionally, we investigate extra power losses in chargers while EVs provide reactive power, and we consider the associated cost in the economic evaluations. A test-case with the IEEE 33-node distribution grid is used to assess the market potential of EV reactive power provision. This new service extends EV penetration in a cost-efficient way without causing voltage problems. The simulation concludes that it is economically feasible to use EVs for reactive local provision with efficient chargers. These outcomes sustain the potential of promoting such new EV services through a proper market in distribution grids.