# **EV ORDINANCE** – COST ESTIMATES



# **About These Estimates**

The tables below summarize local cost estimates for electric vehicle (EV) readiness infrastructure during new construction or major Level 3 alterations compared with standalone EV charger retrofit installations.

# **Key Considerations**

## **Costs range substantially based on:**

- Type of parking (surface vs. enclosed)
- Type of charger
- Number of chargers (economies of scale)
- · Distance to electrical panel
- · Other site plan elements

## **Typical savings during construction:**

Installation costs are lower during new construction or when paired with major renovations compared with during a stand-alone retrofit – *typically 4-6 times less expensive.*<sup>1</sup>

## **Type of chargers:**

This ordinance focuses on Level 2 charging which is generally used in home, workplace, and public charging applications. Level 2 charging utilizes a 240V circuit, and can charge a typical EV with a 250-mile range in 9-10 hours.

#### **Economies of scale:**

The installation cost per space declines with the number of EV ready spaces per site due to economies of scale in materials, labor, etc. Installations of 6 or more chargers are estimated to cost *30% less* than installations of a single charger at a site.<sup>2</sup>



<sup>&</sup>lt;sup>1</sup> Southwest Energy Efficiency Project

<sup>&</sup>lt;sup>2</sup>International Council on Clean Transportation

Multi-Family and Commerical - Cost Per Plug/Space			
EV Readiness Level	New/Retrofit	Local Estimates <sup>3</sup>	
EV Ready: (Panel capacity, conduit, wiring)	<b>New</b> – cost during construction	\$750 – Wall mount in parking garage \$2,000 – Pedestal mount on surface lot (30' from panel)	
	Retrofit – Retrofit cost (when panel capacity exists)	\$1,500 – Wall mount in parking garage \$3,000 – Pedestal mount on surface lot (30' or less from panel) \$10,000 – Pedestal mount on surface lot (50'+ from panel)	
EVSE Installed: (Panel capacity, conduit, wiring and charger)	New – Cost during construction	\$1,200 – Wall mount (typical non-networked charger) \$3,000 – Pedestal mount on surface lot (non-networked charger with pedestal)	
	Retrofit (when panel capacity exists)	\$10,000 – Wall mount \$12,000 – Pedestal mount on surface lot	

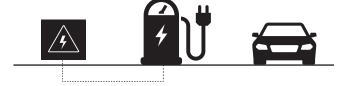
Note: 6M in Ameren Missouri incentives are currently available to cover up to 50% of project costs or \$5,000 per Level 2 charging plug installed; whichever is the lesser amount. Ameren Missouri must pre-approve project prior to construction.

One to Four Family Residential - Cost for an EV Ready Plug/Space			
New/Retrofit	Local Estimates *Cost ranges due to factors listed above		
New – cost during construction (EV ready outlet) (Charger in garage and about 10' away from electrical service panel)	\$380		
Retrofit cost (when panel capacity exists)	\$800 - \$1,170		

## **Definitions**



**EV Ready:** Install electrical panel capacity and raceway with conduit to terminate in a junction box or 240-volt charging outlet (typical clothing dryer outlet).



**EVSE (electric vehicle supply equipment) Installed:** Install a minimum number of Level 2 EV charging stations.



<sup>&</sup>lt;sup>3</sup> Estimates provided by Ameren Missouri and Clayco