

Not Shocking: The Business of EV Charging Raises State Tax Issues

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In this article, Cook, Smith, and Duncan discuss the potential sales and excise tax implications of electric vehicle charging stations, including the two areas in which tax issues are likely to arise: the build-out or installation of those stations and electricity sales through them.

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While most Americans still drive motor-fueled vehicles, that may not be the case by the end of the decade. The popularity of electric vehicles is rising as consumers, businesses, the

auto industry, states, and the federal government prioritize using renewable energy and greener alternatives to fossil fuels.

At the state level, California regulators will require all new vehicles sold in the state to run on electricity or hydrogen by 2035.¹ The auto industry has also been setting aggressive targets for EV production. At the federal level, the Biden-Harris Electric Vehicle Charging Action Plan calls for EVs to reach 50 percent of all new vehicle sales in the United States by 2030. However, the plan highlights one of the main challenges hindering the widespread adoption of EVs: the availability of charging infrastructure across the country. In recognition of this challenge, \$5 billion in funding has been set aside under the bipartisan infrastructure law to increase EV charging station capacity to the desired goal of 500,000 chargers nationwide, with charging stations available every 50 miles along federally designated highways.²

As the public and private sectors expand the EV charging infrastructure, companies involved in the industry will need to consider the state and federal tax implications of their business models. In this article, we focus on two areas in which state sales and use tax or excise tax issues are likely to arise: the build-out or installation of the charging stations and the sale of electricity through the charging stations. State laws on these issues — and the interpretation of these laws by courts and administrative agencies — will vary and likely evolve over time.

¹ California Air Resources Board, “Proposed Advanced Clean Cars II Regulations: All New Passenger Vehicles Sold in California to be Zero Emissions by 2035.”

² U.S. Department of Transportation, National Electric Vehicle Infrastructure Formula Program Guidance (Feb. 10, 2022).

Before examining the potential tax implications, a short primer on the current operation of EV charging infrastructure is helpful. It is important to remember that because the EV charging industry is still in its early stages in the United States, there is not yet a dominant business model, and it is likely to significantly evolve as the infrastructure network develops.

EV Charging Basics

EVs are powered by batteries, not gasoline, and a battery is recharged rather than replaced when its charge dissipates. Charging an EV requires a cable that plugs into the vehicle at one end and a charging port at the other. All EVs come with a standard charger that can be plugged directly into a household 120-volt outlet from the vehicle.³ This type of charging, called level 1 charging, is generally affordable and easy, but is also slow and can take 40 to 50 hours to charge a battery from empty.⁴

There are also two higher levels of charging — levels 2 and 3 — in which the voltage increases with the charging level and results in a faster charge. Level 2 charging typically requires a hard-wired unit (that is, a dedicated electrical line from a circuit breaker to the charging location) and can transmit electricity at up to 240 volts, charging an EV in a few hours. Most publicly available charging stations in the United States are level 2. Level 3 chargers, also called DC fast chargers, are the fastest charging stations and can charge an EV in about 20 minutes, but they are more expensive to install and operate. In the Federal Highway Administration's proposed rule for projects funded by the bipartisan infrastructure plan, new state-constructed charging stations must have at least four DC fast charger ports and be capable of simultaneously charging at least four EVs.⁵

An EV battery can be recharged at home or through a public access point. For home charging, EV owners can use the level 1 charger provided with the EV or purchase and install their own level 2 or 3 charging equipment. Some EV owners may also have access to a charging station through their condominiums or apartment complexes. Moreover, some owners may use a more public station through their employer, at retail locations, or at other public access points. Although some public charging stations are free, many newer stations impose various fees on users.

Generally, EV owners will locate a station via an app or website and charge similarly to pumping gas. Some stations require reservations or check-in via the app or at the charging station itself via a touch-screen on the kiosk. Upon arriving at the charging station, the EV owner can simply plug the charger into the vehicle's charging port, usually located where the gas cap would be. Charging may be sold by the charging station operator, or provided free, often as an incentive to visit retail areas near the charging station.

Businesses hosting an EV charging station typically decide between two primary business models: owning and operating the station or contracting with a third party to own and operate it. If it owns and operates the EV station, the site host is responsible for purchasing and installing the EV equipment — and perhaps working with a contractor to perform construction and installation. EV charging equipment can be mounted on walls, ceilings, or pedestals; pedestals are the most expensive option because pedestal-mounted equipment generally requires the installation of a concrete pad at the base. Charging stations can also be networked to connect to the internet via cable or wireless technology.

After installation, the site host will be responsible for operating and maintaining the charging station while retaining all revenue generated from customers. A business may choose this approach to have more control over the charging station's pricing structure. Some owners seek to entice customers by supplying free electricity, while others levy fees that may be based on price per kilowatt-hour supplied, price

³ Tesla EVs use a proprietary connector and require an adapter to charge at non-Tesla charging stations.

⁴ U.S. Department of Transportation, *Electric Vehicle Charging Speeds* (Feb. 2, 2022).

⁵ National Electric Vehicle Infrastructure Formula Program, 87 Fed. Reg. 119 (proposed June 22, 2022) (to be codified at 23 C.F.R. pt. 680).

by the hour, or price per charging session. It is also common for site owners to impose fees to initiate a charging session, or for idling after a charging session is complete.

Alternatively, site owners can contract with a third-party service provider to install and operate the EV charging station. The site host will then collect revenue under an agreement with the service provider, typically based on the amount of electricity sold to customers. If the charging station is networked, the host may also share revenue from digital advertising displayed on a screen on the charging station pedestal. Site owners may prefer to work with third-party service providers to reduce the expenses associated with purchasing, installing, operating, and maintaining the charging stations.

Charging Station Taxability Considerations

The initial sales tax issue concerns the taxability of the charging station equipment and its installation. Charging station equipment sold separately is tangible personal property, and the purchaser will generally be required to pay sales tax. If the equipment is installed by a contractor, however, then the contractor — rather than its customer — may be considered the consumer of the property, hence required to pay sales tax to the equipment supplier. This is usually the case when a contractor makes real property improvements for its customer.

On the other hand, in states where charging stations would not be defined as real property improvements, the contractor may be considered the retailer of the charging station equipment. In that situation, the contractor would purchase the charging equipment from a supplier without paying sales tax, which it would collect from its customer. If the contractor charges the customer separately for installation, then those charges may also be subject to sales tax. To determine the proper sales tax treatment for these transactions, businesses typically must understand whether the installed charging station would be considered a real property improvement or retain its character as tangible personal property.

Determining whether property affixed to real property is tangible personal property or becomes part of real property involves potentially differing state laws and other factors. The intention to

permanently affix the charging station to real property may be a controlling factor in characterizing it as a real property improvement. Similarly, the easier it is to remove the station from real property, the more likely that a state will deem it tangible personal property rather than real property. For example, if removing the station would damage the surrounding real property, it is more likely to be considered real property. But businesses need to be aware of a state's test for determining what constitutes tangible personal property or real property, as well as whether the state has defined fixtures and if they are taxable.

Under Maryland law, for example, if the intention to annex the property is to permanently and substantially improve land, a building, or other real property, then it will be considered real property. An installed or annexed item that is an integral, necessary, and expected part of real property constitutes a permanent and substantial improvement to that property.⁶ The factors in determining the intention of the party making the annexation are:

- a. the nature of the article annexed;
- b. the mode of annexation;
- c. the purpose for which it was annexed; and
- d. the practicality and feasibility of removal of the annexed article.⁷

Specifically, signs or plaques embedded into a building's wall or floor with the intent to be permanent that cannot be removed are considered improvements to real property.⁸ Based on this test, charging station equipment attached to concrete slabs is more likely to be considered a real property improvement or fixture. On the other hand, a station that is affixed to a wall and can be more easily removed may retain its character as tangible personal property.

⁶Md. Regs. Code 03.06.01.19(C)(2).

⁷Md. Regs. Code 03.06.01.19(C)(4).

⁸Md. Regs. Code 03.06.01.36(E).

Companies that build out charging stations should also be aware that some states may exempt property or services sold to construct or install charging station infrastructure. For example, Washington provides a sales tax exemption for tangible personal property that becomes a component of EV charging infrastructure, as well as labor or services for installing, constructing, repairing, or improving that infrastructure.⁹

Taxability of Electricity

Businesses should also analyze how the state classifies and taxes electricity sales. Some states consider electricity to be tangible personal property subject to sales tax, with exceptions such as a resale exemption or an exemption for residential use. In many states, the sale of electricity to an individual for use in charging an EV at home may be exempt. In some states, electricity may also be subject to excise tax. Depending on whether and how an operator charges customers to use the charging station, the fees may be subject to tax.

Operators of free charging stations would likely not be subject to tax because states generally only consider a taxable retail sale to have occurred if payment or other consideration is exchanged between the buyer and seller. In this situation, the charging station operator would likely be considered the buyer and end consumer of electricity purchased from the utility provider and would be required to pay any applicable tax.

In states where electricity is considered tangible personal property, the electricity would be treated similarly to the sale of a traditional tangible good. When a charging station operator sells electricity to a customer, regardless of whether the operator's fee is based on time or kWh, the transaction generally constitutes a taxable retail sale. The operator would be required to collect sales tax from the customer. For example, in Arkansas the sale of electricity is deemed to be a taxable sale of tangible personal property, regardless of how it is charged to the customer.¹⁰

This may not be the case in all states, however. In a Georgia letter ruling, an operator charged customers for access to charging stations based on charging time rather than kWh consumption. Customers also paid a fee for starting a charging session and an additional charge for idling after the charging was complete. Based on these facts, the Georgia Department of Revenue found that the operator was not a utility and was not deemed to be selling electricity. As such, the operator was required to pay sales tax on the electricity it purchased, but not required to collect sales tax on the charges to its customers.¹¹ But if the taxpayer was charged for the electricity based on kWh, the sale would be subject to sales tax.

In most cases, if electricity is subject to sales tax, then the charging station operator can make its wholesale purchases of electricity without payment of tax by presenting its utility provider with a resale certificate. Some states, however, do not allow for the resale of electricity. For example, Indiana does not allow purchasers to use a resale certificate to purchase electricity tax-free from utility companies.¹² In that state, charging station operators are required to pay sales tax to the utility provider, but may apply for sales tax refunds on the electricity purchased and resold to customers. In these circumstances, it may be worthwhile for operators to consider the benefit of using separate metering for their charging stations.

Providers of mobile applications to help customers locate and use charging stations should also be aware of the state tax implications. App providers are considered marketplace facilitators in some states and may be required to collect and remit sales tax.

Another issue is that some states impose specific utility excise taxes in lieu of sales tax on electricity. For example, electricity is not subject to sales tax in Illinois, which instead imposes an excise tax on the privilege of using electricity — typically collected and remitted by the delivering supplier. Also, the state's Public Utilities Act imposes a tax on invested capital and the distribution of electricity. In a recent letter ruling

⁹ Wash. Rev. Code section 82.08.816.

¹⁰ Arkansas Department of Finance and Administration, Revenue Legal Counsel Op. No. 20190622 (May 19, 2020).

¹¹ Georgia Department of Revenue, LR SUT-2019-07 (Sept. 25, 2019).

¹² Indiana Rev. Rul. No. 2019-03ST.

request, an EV charging station operator inquired whether it would be subject to both the electricity excise tax and the electricity distribution tax.

In response, the Illinois DOR stated that under the Public Utilities Act, furnishing the service of charging EVs neither makes an entity a public utility nor constitutes selling electricity. But that language is not in the Electricity Excise Tax Act, and the law does not exempt electricity sold through an EV charging station from the excise tax. Thus, Illinois considers EV charging stations to be delivering suppliers that must register with the DOR and collect and remit the electricity excise tax, but not the electricity distribution tax.¹³

In Tennessee, the DOR recently updated its Utilities Gross Receipts Tax Manual to explain that businesses selling or distributing electricity via charging stations are subject to the utilities tax on their gross receipts, but that those receipts are exempt from the business tax.¹⁴ Since electricity is considered tangible personal property, the charging station operator's sale of electricity also appears to be subject to sales tax.¹⁵

Regardless of whether the state imposes sales tax or excise tax on electricity sales, businesses need to understand what fees are included in the tax base and how to calculate the tax due. And as states enact new legislation on the taxability of EV charging, it is important for businesses to monitor these updates. For example, effective July 1 in Iowa, an excise tax of 2.6 cents will be levied on each kWh of electricity (termed "electric fuel") delivered to EVs in the state — other than at a residence.¹⁶

Kentucky H.B. 8, effective January 1, imposes a new excise tax (initially set at 3 cents per kWh) on electricity distributed to EVs. An additional surtax (also initially set at 3 cents per kWh) is levied on electricity distributed in the state when the charging station is on state property. The tax is to be added to the selling price at the EV charging station, but if there is no selling price at the station (for example, when charging is free), the operator would be responsible for paying the tax.

Other Considerations

Local tax issues could also arise. In localities that have a parking tax, such as Chicago, fees not directly associated with charging may constitute a fee for parking and necessitate the collection of the Chicago parking tax.¹⁷

Finally, some incentives associated with green energy initiatives apply to the EV industry. Taxpayers are eligible to claim a federal income tax credit for up to 30 percent of the cost of EV charging stations.¹⁸ Under the Inflation Reduction Act, the credit was extended through 2032, and the per-location limit was increased from \$30,000 to \$100,000.¹⁹ The credit cap remains at \$1,000 for recharging stations at personal residences. The act also imposes new restrictions to qualify for the 30 percent credit rate based on federal labor requirements, and states that the property must be in an eligible census tract to qualify for the credit. An eligible census tract is one either (1) described in section 45D(e) (low-income communities for purposes of the new markets tax credit); or (2) not in an urban area (a census tract defined as an urban area by the secretary of commerce in the most recent decennial census).

Many states also provide income tax credits, property tax abatements, or discretionary grants based on the purchase and installation of EV charging stations. The tax credits are generally statutory and equal to a percentage of the depreciable cost of the property. Property tax abatements and grants are generally offered at the local level and must be applied for prospectively. The grants can depend on several factors, such as the type of EV refueling property (level 1, 2, or DC fast charger), property location, and whether the property will be available for public or private use.

¹³ Ill. General Information Letter ST21-0040.

¹⁴ Tenn. Utilities Gross Receipts Tax Manual (Aug. 1, 2022).

¹⁵ Tenn. Comp. R. & Regs. 1320-05-01-.107.

¹⁶ Iowa Code section 452A.41.

¹⁷ Chicago Municipal Code section 4-236-010 et seq.

¹⁸ 26 U.S.C. section 30C.

¹⁹ Inflation Reduction Act of 2022, P.L. No. 117-169, section 13404, 136 Stat. 1818, 1966 (2022).

Conclusion

EV charging occupies a complex and shifting intersection of social and environmental policy, tax law, and federal and state incentives. Businesses must work through difficult questions regarding the nature and taxability of charging stations, as well as the taxability of the electricity distributed by the stations. Other tax issues could also arise, including the taxability of revenue not based on the sale of electricity, such as advertising revenue. Companies involved in EV charging should continue to monitor federal and state tax law developments closely.²⁰ ■

²⁰The foregoing information is not intended to be “written advice concerning one or more Federal tax matters” subject to the requirements of section 10.37(a)(2) of Treasury Department Circular 230. The information contained herein is of a general nature and based on authorities that are subject to change. Applicability of the information to specific situations should be determined through consultation with your tax adviser. This article represents the views of the author(s) only and does not necessarily represent the views or professional advice of KPMG LLP.

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