

Plugged In or Locked Out? Access Regimes, Vertical Integration, and Strategic Investment in EV Charging

Julia Müller

EUI, Florence, Italy

Extended Abstract

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Abstract Summary

This paper studies how charging-access rules affect electric-vehicle pricing, charging-network investment, and welfare when one EV producer is vertically integrated into charging while rivals remain specialized. I develop a three-stage theoretical model in which firms choose EV prices and network size, consumers choose whether and which EV to buy, and charging demand is realized under either closed or open access to networks. The analysis shows that closed access strengthens private incentives to invest by tying infrastructure returns more closely to a firm's own buyers, whereas open access improves compatibility and charging allocation but creates spillovers that weaken private returns. A numerical illustration suggests that open access can nevertheless raise EV adoption and welfare despite lowering total private investment. The results highlight a policy trade-off between interoperability and infrastructure incentives, and suggest that open-access regulation may need to be paired with complementary investment support.

Presenting Author Biography

Julia Müller is a third-year Ph.D. researcher in Economics at the European University Institute. Her research lies in Industrial Organization, with a focus on network industries, platform markets, firm investment incentives, and environmental and energy economics. Her current work examines how market design, access regulation, and vertical relationships shape competition, infrastructure investment, and welfare, with applications to electric-vehicle charging markets.