



**GREENWASHING THE GREEN:  
A COMPETITIVE ANALYSIS OF AGREEMENTS IN THE EV CHARGING  
INDUSTRY**

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***Abstract***

*In pursuance of ESG objectives, undertakings tend to collaborate with competitors in the market to achieve mutually beneficial goals, which are prone to anti-competitive practices. The paper attempts to bring out the paradoxical dilemma of how cooperation agreements in the EV Charging industry, which is an inherently green (sustainable) industry, can also be susceptible to greenwashing concerns. This paper begins with a brief analysis of the EV charging market in India, followed by a competitive assessment of the different types of cooperation agreements, specifically vertical integration and horizontal agreements that players within the EV charging market undertake. By examining the collaborative strategies in light of competition law, the paper elucidates on the change in market dynamics shaped by these agreements. Building upon the insights derived from the preceding analysis, the authors attempt to suggest recommendations tailored to the specificities of a developing EV charging market like that in India. The authors contend that India should adopt a pro-competitive stance in this regard and ensure that sufficient caveats are in place while analysing such agreements to safeguard competition law.*

**I. INTRODUCTION**

Amidst the swift and surging transition towards an environmentally conscious economy, nations seek to decarbonise the transport industry through the widespread adoption of Electric Vehicles ('EVs'). To augment the uptake of EVs, there is an imminent need for a robust public EV charging infrastructure, primarily facilitated by cooperation agreements between relevant stakeholders of the EV charging ecosystem. Such agreements take the form of Vertical and Horizontal agreements like Peer-to-Peer ('P2P') Roaming and Hub-and-Spoke models that are further prone to anti-competitive risks such as cartelisation. Exchanging commercially sensitive information, despite bearing a noble intention, could potentially distort market competition, thus bringing it within the competition regulator's radar. This generates a sense of legal uncertainty

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and competitive compliance concerns that disincentivise companies from treading these murky waters, thus making it pertinent to assess these agreements from a competition law standpoint.

Scholarly discourses on this emerging topic have been concentrated in the West, mainly in the European Union ('EU') countries like the Netherlands (Dutch Authority for Consumers and Markets), Hellenic Competition Authority and the UK's Competition and Market Authority ('CMA'). This intersection remains largely unexplored by the Competition Commission of India ('CCI') in the Indian context. With the European Commission coming up with the new draft Guidelines on Horizontal Co-operation Agreements in January 2023, dedicating a whole chapter to sustainability agreements, it is imperative to present a developing country's roadmap on how best to accelerate the growth of the EV industry in a manner that does not hamper competition law goals.

## II. ANALYSING THE EV CHARGING MARKET: AN INDIAN PERSPECTIVE

EV adoption in India has been increasing at a steady rate, with consumer trends indicating a gradual shift from traditional combustion engines to EVs. In India, the categorization of the EV sector hinges on the presence of EVs in the supply chain and the prevailing adoption trends in demand. A preferential shift towards EVs is dependent upon an adequate charging ecosystem, the lack of which will hinder the process of such adoption.<sup>1</sup> The EV charging market in India is fragmented and concentrated, thus raising consumer concerns like range anxiety and limited availability.<sup>2</sup> Moreover, owing to an infrastructure deficiency, consumers are more likely to resort to home charging as opposed to public charging units due to the lack of trust in these CPOs.<sup>3</sup> With respect to EV charging, India has administered a policy, adopting a more proactive stance to ensure a swifter and wider rollout addressing such apprehensions. Directive standards and

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<sup>1</sup>Praveen Prakash Singh and Others, 'Electric Vehicles Charging Infrastructure Demand and Deployment: Challenges and Solutions' (2022) 16,7 *Energies* 2023.

<sup>2</sup>Sidhartha Maheshwari and Meghna Nair, 'Laying the Groundwork for Electric Vehicle Roaming in India: Interoperability of Electric Vehicle Charging' (*Council on Energy, Environment and Water and eDRV Report*, July 2021)

<<https://shorturl.at/sBIW4>> accessed 27 December 2023.

<sup>3</sup>Jyothi Gulla and Neha Gupta, 'Evolving EV Charging Infrastructure in India' (*JMK Research & Analysis*, April 2021) <<https://jmkresearch.com/electric-vehicles-published-reports/evolving-ev-charging-infrastructure-in-india/>> accessed 28 July 2023.



guidelines for EV charging infrastructure have been issued by the Ministry of Power, which mandates a more equitable distribution at a broader scale.<sup>4</sup>

Stakeholders involved in the production and supply of EV charging stations can primarily be classified into three groups:

1. *Pure plays*: Entities purpose-built for the singular objective of EV recharging;
2. *Expanding Incumbents*: Prominent entrants from diverse sectors including, equipment manufacturing, utilities, technology, oil and gas, and automotive Original Equipment Manufacturers (“OEMs”)and;
3. *Government-led public enterprises*: That take initiatives to foster such a rollout.

The Indian EV charging market at the current stage is primarily comprised of government-run Charge Point Operators (“CPO”)as well as budding pure players in its nascent stage of development.<sup>5</sup> India’s flagship initiative to promote electric mobility, Faster Adoption and Manufacturing of (Hybrid and) Electric vehicles (“FAME”), is an initiative of the Department of Heavy Industries to encourage the adoption of EVs and ensure faster rollout of EV charging network.<sup>6</sup> Phase II of this initiative has also sanctioned 2,877 EV charging stations in 68 cities pan India and has further assented to disburse 800 Cr to Oil Marketing Companies to establish EV public charging stations.<sup>7</sup>

### **III. VERTICAL INTEGRATION: COMPETITIVE ASSESSMENT WITHIN**

#### **A. The Supply Chain**

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<sup>4</sup>Ministry of Power, ‘Charging Infrastructure for Electric Vehicles (EV)- the revised consolidates Guidelines and Standards – reg’(No.12/2/2018 - EV, 2022).

<sup>5</sup>Vipul Aggarwal and Parthasarathi Prabhakaran, ‘Significance of Interoperability and EMSPs in India’s EV Charging Industry’ (*EVALUESERVE*, 5 September 2022) <<https://www.evalueserve.com/wp-content/uploads/2022/09/Significance-of-Interoperability-and-EMSPs-in-India-s-EV-Charging-Industry.pdf>> accessed 3 Aug 2023.

<sup>6</sup>Ministry of Heavy Industries, ‘Fame India Scheme’ (*Press Information Bureau*, 25 July 2023) <<https://pib.gov.in/PressReleaselframePage.aspx?PRID=1942506>> accessed 5 Aug 2023.

<sup>7</sup>ibid.



An EV charging station is a convergence of multiple participants that operate within a defined framework, constituting a fully operational EV charging network. These participants enter into bilateral agreements with each other, fostering a form of ‘co-opetition’ within the EV charging market.<sup>8</sup> Since this arrangement is between direct participants within the production chain, it takes on a vertical form. As a result, these agreements are subject to competitive assessment to mitigate any possible risk.

The most prevalent form of such integration occurs between Charging Point Operators (‘CPOs’), which are engaged in the operation of the physical infrastructure of an EV charging station and Electronic Mobility Service Providers (‘eMSPs’) that provide and oversee digital end-customer services such as access provisioning and payment facilitation.<sup>9</sup> While CPOs and eMSPs are the two crucial and interdependent elements of a charging station, a broader ecosystem of participants in the form of Original Equipment Manufacturers (‘OEMs’) representing vehicle manufacturers and Distribution System Operators (‘DSOs’) who supply electricity to the charging points also constitute the production chain.<sup>10</sup> These participants also engage in mutually beneficial vertical agreements to constitute an EV charging station.

The incipient nature of the market, coupled with a growing preference towards a green shift, provides a safe haven for these participants to engage in anti-competitive conduct through these vertical agreements. A prominent concern for these integrated agreements is the concentration of such charging points within a narrow geographical sphere that may give rise to a “Natural Monopoly”.<sup>11</sup> This results in the fixation of price dynamics not subject to market forces due to the absence of competition. Hence, exclusive agreements remain within a group of consolidated players in the market who have established themselves as dominant players. This results in a phenomenon known as ‘market tipping’, where the market tips in favour of the player who had an initial advantage, thus prohibiting new players from entering the market, leading to limited

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<sup>8</sup>Arthur J. Caplan, ‘Regulating co-opetition in an EV charging market’ (2023) 118 *Economic Modelling*.

<sup>9</sup>Virta Global, ‘EMSP and CPO: the two sides of EV charging network operators’ (*Virta Years*, 16 May 2022) <<https://www.virta.global/blog/emsp-cpo-ev-charging-roles-responsibilities>> accessed 14 Aug 2023.

<sup>10</sup>EV Markets Reports, ‘Landscape of EV Recharging in Select European Countries’ (*EV Markets Report*, May 2023) <<https://evmarketsreports.com/landscape-of-ev-recharging-in-select-european-countries/>> accessed 27 July 2023.

<sup>11</sup>Charles River Associates, ‘Competition analysis of the electric vehicle recharging market across the EU27 + theUK’ (*Publications Office of the European Union*, 20 April 2023) <[https://competition-policy.ec.europa.eu/system/files/2023-04/kd0523130enn\\_electric\\_vehicles\\_study\\_extended\\_executive\\_summary.pdf](https://competition-policy.ec.europa.eu/system/files/2023-04/kd0523130enn_electric_vehicles_study_extended_executive_summary.pdf)> accessed on 18 Aug 2023.



interoperability, less product differentiation and high barriers to entry.<sup>12</sup> The primary issue that follows this practice is the price fixation in the already concentrated market. This occurs when CPOs impose higher access fees on eMSPs operating in less competitive regions, which further prompts eMSPs to charge elevated prices to the end consumers in areas with limited competition. This enables price adjustments based on local competitive dynamics.

Further, these CPOs and eMSPs enter into exclusive agreements within themselves and other participants, inducing exclusionary conduct, potentially leading to vertical foreclosure, where the parties to the agreement have the propensity to foreclose potential downstream rivals. Instances where participants may facilitate exclusionary conduct are enumerated as follows:

### **B. Integrated CPOs/DSOs Foreclosing Rival CPOs**

DSOs refer to energy and network suppliers within an EV charging framework. When these DSOs integrate through exclusive bilateral contracts with CPOs, it rids rival competitors of energy supply, which is catered to a specific CPO, thus affecting rival CPOs who seek to rely on these energy suppliers. This is a common occurrence across Europe in countries like Ireland where ESB eCars, a subsidiary of the electricity DSO provider, ESB's eMobility, has a 58% share amongst CPOs,<sup>13</sup> resulting in high market concentration. The matter was effectively dealt under Article 33 of Directive (EU) 2019/944, which explicitly prohibits distribution system operators from owning and operating CPOs.<sup>14</sup>

### **C. Exclusionary Conduct Involving ICE Fuel Retailers and Local Authorities**

CPOs can also enter into direct agreements with incumbent ICE fuel retailers who have established themselves as prominent fuel suppliers. This makes the only charging point in key locations, resulting in vertical foreclosure. In 2021, Electric Highway established dominance as an on-route operator overseeing around 80% of all charging points along the highways in the

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<sup>12</sup>Katz, Michael L., and Carl Shapiro, 'Systems Competition and Network Effects' (1994) 8 (2) Journal of Economic Perspectives, 93-115.

<sup>13</sup>ESB Networks, 'Independent Role of the DSO' (ESB Networks, 30 September 2021) <<https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio.media.com/documents/CRU2022989c-ESBN-Independent-Role-of-the-DSO-Submission.pdf>> accessed on 20 Aug 2023.

<sup>14</sup>Council Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU [2019] OJ L 158/125, Art.33.



UK.<sup>15</sup> This situation prompted a regulatory inquiry by the CMA, leading to recommendations against enforcing exclusive rights over charging points. Furthermore, instances of such conduct at a regional level also occur when local fuel retailers exploit their position to favour CPOs they control.

#### **D. Exclusionary Conduct by Dominant Integrated CPOs/eMSPs**

Concerns arise when a dominant integrated CPO/eMSP engages in abusive exclusionary conduct, foreclosing rival eMSPs. This tends to foster anti-competitive practices such as predatory pricing and margin squeeze. An example is the investigation by Italy's antitrust authority on Enel X,<sup>16</sup> a significant player in Italy's public charging infrastructure sector, for potential margin squeeze. The situation primarily concerned dominance in physical infrastructure management (upstream market) and abusive practices within service supply through eMSPs (downstream market).<sup>17</sup> While the anti-competitive concerns loom large, a significant policy change can be observed in the EU. In Italy, a mandatory licence award through an open, competitive and anti-discriminatory process is required.<sup>18</sup> Similar practices are adopted in the UK and Belgium, where CPOs are strictly scrutinised to ensure that monopolistic position do not emerge.<sup>19</sup>

Reiterated above are the anti-competitive concerns that arise out of vertical arrangements of an already mature market in the European context. Although there is a dearth of competitive assessments of vertical arrangements with specific reference to EV charging in India, it can be observed that there is evolving jurisprudence in the CCI's approach surrounding the same.

#### **IV. COMPETITIVE ASSESSMENT OF VERTICAL INTEGRATION: INDIA**

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<sup>15</sup>Competition Market Authority, 'Summary: Building a comprehensive and competitive electric vehicle charging sector that works for all drivers' (*Competition & Markets Authority*, 23 July 2021) <<https://www.gov.uk/government/publications/electric-vehicle-charging-market-study-final-report/final-report>> accessed 19 Aug 2023.

<sup>16</sup>Alessia Pé, 'Italy Investigating Enel over dominant position in EV charging' (*Thomas Reuters*, April 14 2023) <<https://www.reuters.com/business/energy/italy-investigating-enel-over-dominant-position-ev-charging-2023-04-14/>> accessed on 20 Aug 2023.

<sup>17</sup>*Enel S.p.A. et al. v. Google LLC et al.* [2021] Italian Competition Authority (AGCM) Case No. A529.

<sup>18</sup>Council Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU [2019] OJ L 158/125.

<sup>19</sup>Charles River Associates (n 12).



Section 3(4) of the Competition Act, 2002<sup>20</sup>(‘Act’), in conjunction with Section 19(3), delineates the provision addressing anti-competitive vertical agreements. It enunciates the Appreciable Adverse Effect on Competition (AAEC) based on which the Commission shall determine the level of anti-competitiveness.<sup>21</sup>

One such case where vertical agreements were carefully analysed for possible abuse of dominance, leading to vertical foreclosure, is the case of *Shri Shamsher Kataria v. Honda Siel Cars India Ltd. and Ors.*<sup>22</sup> This case dealt with exclusive distribution agreements between OEMs and Original Equipment Suppliers restraining the supply of spare parts and prohibiting new players from entering the market. Subsequently, the CCI intervened and adjudged that the agreement had helped OEMs establish a monopoly and deprived independent repairers of competition in the car repair market. In the decision, the CCI held that the rule of reason standard is to be followed in vertical agreements,<sup>23</sup> where the onus is on the party alleging probable anti-competitive concern to prove the opposite party is engaging in such practices beyond a reasonable doubt.

It can be observed that significant influence from the EU competition law is present while assessing these agreements; hence, such illegitimate market practices that may tend to materialize in the EV charging market can be alleviated at an early stage if courts in India follow suit and minimise risk learning from mature market jurisprudence. Bilateral agreements among CPOs and eMSPs are prevalent in the EV charging market. However, when these integrated CPOs/eMSPs engage in agreements with other integrated counterparts to increase network sharing and operability, it creates a horizontal arrangement among EV charging stations, thereby promoting and fostering interoperability. A positive trend towards interoperability can be seen across EU nations as of 2022, where almost 80% of public charging services enable roaming.<sup>24</sup>

#### V. HORIZONTAL INTEGRATION: INFRASTRUCTURE-SHARING AGREEMENTS

Infrastructure sharing occurs when two or more players in a relevant market mutually agree to share/co-deploy their infrastructure for a swift network rollout. Competitors often consider

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<sup>20</sup>The Competition Act 2002, §3(4).

<sup>21</sup>The Competition Act 2002, §19(3).

<sup>22</sup>*Shri Shamsher Kataria v. Honda Siel Card India Ltd. and Ors.*, Case No. 03 of 2011.

<sup>23</sup>*M/s Jasper Infotech Private Limited (Snapdeal) v. M/s Kaff Appliances (India) Pvt. Ltd.*, C. No. 61 of 2014 (CCI) [51].

<sup>24</sup>*Ibid*; Charles River Associates (n 12).



infrastructure sharing as a means to primarily reduce network development costs. Additionally, this concept may be motivated by the objectives of improving coverage, minimizing duplication, or pooling spectrum to enhance overall operational efficiency.<sup>25</sup>

As markets mature and transition from rapid expansion to service-oriented innovation, operators aim to maximize profits and revenues. In this scenario, two or more existing players may collaborate to integrate parts or the entirety of their networks, strategically expanding coverage in a unified manner. Thus, while benefits like cost reduction and improved efficiency unarguably flow from such agreements, there also exist limitations in the form of reduced incentives to compete and the requirement for increased peer coordination that is left overlooked in a developing market like EV Charging.

Drawing parallels from the telecom industry, when analysing the competition law risk of network sharing agreements, factors like the workable level of competition, the type of information exchanged between the sharing parties and its consequent bearing on their ability to compete ought to be considered while carrying out a competitive assessment.<sup>26</sup> The BEREC 2018 Report<sup>27</sup> observed that infrastructure-sharing agreements were primarily the result of commercial negotiation instead of regulatory intervention. The after-effects arising from such agreements will be contingent in the broader structure and dynamics of the given market. Enhancing interoperability and implementing EV roaming can serve as a bridge between consumer expectations and the current market offerings.<sup>28</sup> However, given that the EV market is at its budding stages in India, any agreement, concerted practices or unilateral behaviour could potentially raise concerns that could impede or distort competition in the emerging market.

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<sup>25</sup>Zoltán Pápai and others, 'Competition Policy Issues in Mobile Network Sharing: A European Perspective' (2020) 11 (7) *Journal of European Competition Law & Practice*.

<sup>26</sup>Body of European Regulators for Electronic Communications, 'BEREC Common Position on Mobile Infrastructure Sharing' (*Body of European Regulators for Electronic Communications*, 13 June 2019) <[https://www.berec.europa.eu/sites/default/files/files/document\\_register\\_store/2019/6/BoR\\_%2819%29\\_11\\_0\\_CP\\_Infrastructure\\_sharing.pdf](https://www.berec.europa.eu/sites/default/files/files/document_register_store/2019/6/BoR_%2819%29_11_0_CP_Infrastructure_sharing.pdf)> accessed 19 Aug 2023.

<sup>27</sup>Body of European Regulators for Electronic Communications, 'BEREC Report on Infrastructure Sharing' (*Body of European Regulators for Electronic Communications*, 14 June 2018) <[https://www.berec.europa.eu/sites/default/files/files/document\\_register\\_store/2018/6/BoR\\_%2818%29\\_11\\_6\\_BEREC\\_Report\\_infrastructure\\_sharing.pdf](https://www.berec.europa.eu/sites/default/files/files/document_register_store/2018/6/BoR_%2818%29_11_6_BEREC_Report_infrastructure_sharing.pdf)> accessed 15 Aug 2023.

<sup>28</sup>Maheshwari and Nair (n 2).





As held in the EU case of *O2 Germany*,<sup>29</sup> a detailed economic assessment of whether an infrastructure-sharing agreement is necessary to enable the parties to function as competitive operators capable of offering coverage and quality services in the market is required to determine if the agreement is prohibited under Article 101(1) of the Treaty on the Functioning of the European Union ('TFEU').

In the EV Charging market, infrastructure sharing can be achieved in two ways:

**A. Peer-to-Peer roaming agreements**

Peer-to-peer ('P2P') Roaming agreements, commonly encapsulated under the umbrella term 'collaborative economy' by the European Commission,<sup>30</sup> offer a type of decentralised connectivity between different market players (peers) to enhance the co-deployment of resources. It involves the periodic information exchange between the different the platforms and service.<sup>31</sup>

The inconspicuous rise in the P2P economy, in general and specific to EV Charging Industry, has been expedited not only by the lacunae present in competition law, but also by the limited enforcement of the law when compared to the scrutiny offered to regular commercial services.<sup>32</sup> The exchange of information coupled with other confidential data like internal pricing structures leads to predictable market outcomes and homogenisation of products, thereby offering fewer alternatives to the consumers. This is because transparency in the market heightens the risk of collusion. P2P platforms often operate under a 'winner takes all' dynamic.<sup>33</sup> Such agreements can also reorient market structures, especially when one of the market players who is part of this arrangement already holds a dominant position. Thus, it can lead to deleterious effects when analysing the abuse of the dominant position angle wherein by virtue of their strong position, they can impose their policies on the other sharing parties and, ultimately, the product market.

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<sup>29</sup>Case T-328/03 *O2 (Germany) GmbH & Co. OHG v. Commission of the European Communities* [2006] ECR II-1231, page 79.

<sup>30</sup>Commission, 'A European Agenda for the Collaborative Economy' (Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions) COM (2016) 356.

<sup>31</sup>Sofia Ranchordás, 'Peers or Professionals?' *The P2P-Economy and Competition Law* (2017) 4/2018 CoRe.

<sup>32</sup>Kellen Zale, 'When Everything is Small: The Regulatory Challenge of Scale in the Sharing Economy' (2016) 53 *San Diego Law Review* 949.

<sup>33</sup>V. Hatzopoulos and S. Roma, 'Caring for sharing? The collaborative economy under EU law' (2017) 54 *Common Market Law Review* 81, 111.



While assessing such agreements under the lens of competition law, factors like the number of EV Charging operators that are party to the infrastructure-sharing agreements and their cumulative market share are essential metrics. To illustrate, a three-way sharing agreement among the top four market players should be met with caution, as it could give these operators too much control over commercial decisions without any outside forces to keep them in check. Another factor to be considered is the relevant timeframe in which the agreement is in force.

With the simultaneous advent of algorithmic pricing fed by information exchanges, the revelation of current and future pricing strategies can constitute highly classified and sensitive information, similar to what the investigation unearthed in the *Container Shipping Decision*<sup>34</sup> by the European Commission. As observed by Advocate-General Szpunar in his opinion on *UberSpain*,<sup>35</sup> the use of the same algorithm might result into hub-and-spoke conspiracy concerns as the platform power increases. In any case, P2P platforms have significantly lowered transaction costs, thereby enabling transactions between individuals that were previously not economical.<sup>36</sup>

An agreement between two sharing parties is essential if they seek to exchange information about their charging infrastructure with each other. This can also result in exclusionary behaviour wherein dominant players choose not to contract with smaller players, aiming to either acquire or starve them out of the relevant market.<sup>37</sup> When players in the EV Charging industry engage in such agreements, it can alternatively be labelled as a collaboration to satisfy ecological motives, given its inherently sustainable nature. With governments pushing for a clean energy transition in the transport industry, collaborations between different EV Charging Stations in the form of P2P Agreements take centre stage.

### **B. Hub-and-Spoke agreements**

While P2P roaming is concerned with direct bilateral connections between the CPOs and EMSPs, in hub-based roaming, a CPO or eMSP can access multiple roaming partners via a single

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<sup>34</sup>*Container Shipping* (Case COMP/AT. 39850) Commission Decision of 7 July 2016.

<sup>35</sup>Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain* [2017]EU:C:2017:364.

<sup>36</sup>D. Stallibrass and J. Fingleton, 'Regulation, Innovation, and Growth: Why Peer-to-Peer Businesses Should Be Supported' (2016) 7 *Journal of European Competition Law & Practice*, 414.

<sup>37</sup>Dunne N, 'Competition Law (and Its Limits) in the Sharing Economy' in Nestor M Davidson, Finck Michèle and John J Infranca (eds), *The Cambridge Handbook of the Law of the Sharing Economy* (Cambridge University Press 2018); Guy Lougher and Sammy Kalmanowicz, 'EU Competition Law in the Sharing Economy' (2016) 7(2) *Journal of European Competition Law & Practice*, pages 87–102.



connection.<sup>38</sup>The United States District Court has concisely described the Hub-and-Spoke Model in the **Apple E-books** case as follows:<sup>39</sup>

*“[C]ourts have long recognised the existence of “hub-and-spoke” conspiracies in which an entity at one level of the market structure, the “hub,” coordinates an agreement among competitors at a different level, the “spokes.” These arrangements consist of both vertical agreements between the hub, and each spoke and a horizontal agreement among the spokes to adhere to the [hub’s] terms, often because the spokes would not have gone along with [the vertical agreements] except on the understanding that the other [spokes] were agreeing to the same thing.”*

Hub-and-Spoke models in the EV charging industry have, in the recent past been touted as the panacea to the problems associated with the current rollout of EV Charging infrastructure. Yet, enabling an interface for this roaming protocol raises the risks linked to exchanging commercially sensitive information among the back offices of engaged stakeholders, such as CPOs, mobility service providers, and navigation service providers. Networks peer with each other because of (perceived) mutual benefits. When the collision is facilitated indirectly by a third party (hub), the hub arrangement, as mentioned above, materialises.

The hub-and-spoke model finds mention in EU legislations like the Horizontal Guidelines<sup>40</sup> as a form of indirect data exchange and in the Vertical Guidelines<sup>41</sup> that describes the hub as an upstream supplier. These cartels frequently involve aspects such as business strategies, supply intentions or prices.<sup>42</sup> Similar to other forms of horizontal coordination, the primary competition-related concern in terms of competition is that the sharing of commercially sensitive information through the hub has the potential to decrease uncertainty regarding competitors’ actions, ultimately resulting in a more predictable market outcome.

The extent of competitive risk will depend *inter alia* on determining the nature of strategic information exchanged, the size of the pool of confidential information being exchanged and the legal and economic context. Thus, to ascribe statutory liability both in the European and the

<sup>38</sup>Mart van der Kam and R. Bekkers, ‘*Mobility in the Smart Grid: Roaming Protocols for EV Charging*’ (2023) 14 (1) IEEE Transactions on Smart Grid, 810-822.

<sup>39</sup>*United States of America v. Apple*, 12 Civ. 2826 (DLC) (S.D.N.Y. Oct. 2, 2012).

<sup>40</sup>Commission, ‘*Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*’ (Communication) [2011] OJ C11/1, para 55.

<sup>41</sup>Commission Notice 2022/C 248/01 of 30 June 2022 Guidelines on vertical restraints [2002] C 248/1, para 224.

<sup>42</sup>Organisation for Economic Co-operation and Development, *Roundtable on Hub-and-Spoke Arrangements*, (Directorate for Financial and Enterprise Affairs Competition Committee, 2019).



Indian context, this model can be characterised as an anti-competitive agreement under Article 101 (1) of the TFEU and Section 3 of the Competition Act, 2002 (**'Act'**) where practical cooperation between the parties replaces the competition risks.<sup>43</sup>

The evaluation of the competitiveness of the hub-and-spoke model is contingent on specific market conditions. Mere coordination is considered less anti-competitive than a formal agreement within the legal framework. Factors to be examined in this assessment include the roles of both the hub and spokes, determining the driving force behind their conduct, and exploring whether collusion stands as the exclusive plausible explanation for their actions. A comprehensive assessment requires an inquiry into the extent of spokes' awareness concerning information exchanges with other spokes and the hub. It is essential to investigate whether spokes have distanced themselves from the hub's behaviour. Consequently, questions arise about the required standard of proof for tacit collusion, specifically whether it is necessary to demonstrate spokes' awareness that information shared with the hub is passed on to other spokes. All in all, the determinative question is whether the players in the market can still build and sustain competitive differentiation in the wake of the hub arrangement. In the United States, where the legal framework concerning the hub-and-spoke model is more advanced, establishing a horizontal agreement is a prerequisite for enforcing antitrust laws against a hub-and-spoke conspiracy. The proof of such an agreement can be achieved through either direct evidence or circumstantial evidence, which may include inferences drawn from the vertical arrangements and the circumstances surrounding their formation.

In the Indian context, there has been an encouraging start vide the ruling of the NCLAT in the case of *Samir Agrawal v. Competition Commission of India and Ors.*<sup>44</sup> where the tribunal held that algorithms used by platforms like Uber and Ola do not form a hub-and-spoke cartel.

From an EV consumer's perspective, it would provide the greatest satisfaction when service providers and CPOs have connections to multiple other roaming hubs. Since each EV roaming hub is identified by its unique proprietary protocol, the need to implement multiple overlapping protocols arises, further increasing the subscription fees and eventually the total costs. The future of having a single EV roaming hub can come into existence only once the EV Charging

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<sup>43</sup>Case C-49/92 P *Commission of the European Communities v. Anic Participazioni* [1999] ECR I- 4125, para 132 and Case C-238/05 *Asnef-Equifax, Administración del Estado v. AUSBANC* [2006] ECLI:EU:C:2006:734, para 32.

<sup>44</sup>*Samir Agrawal v. Competition Commission of India and Ors.*, 2020 SCC OnLine NCLAT 811.



market is fully established. This can display monopolistic tendencies since there will be a lack of innovation as all new entrants will be forced to join the hub, offering fewer choices to the consumers and reducing differential competition.

#### **VI. RECOMMENDATIONS FOR INDIA: THE WAY FORWARD**

Similar to the report, which assessed potential competition law issues in the EV charging infrastructure published by Charles River Associates in the European Union, an extensive and in-depth study must be conducted in India, keeping in line with its regional demographics and consumer preferences. With the Bureau of Energy Efficiency and the Department of Heavy Industries placed at the helm for the rollout of EV public charging infrastructure in India<sup>45</sup> combined with the powers vested with the CCI vide Chapter IV of the Act, it is recommended that the government, in light of the results of the report, form sector-specific policy guidelines to mitigate any competitive risks associated with the widespread rollout of public EV Charging infrastructure.

While it must be acknowledged that there is also some trouble applying the traditional competition law framework to P2P arrangements<sup>46</sup> since India is at its nascent stages when it comes to sectoral regulations for EVs, there is scope for India to learn from the approach and bridge the market gaps that countries with a relatively mature EV Charging market adopt from a competition law perspective. As a vocal supporter of the EV30@30 campaign, India must also adopt a proactive approach in conducting studies to identify potential competition concerns early on to ensure a smooth deployment of EV Charging stations.

#### **VII. CONCLUSION**

Horizontal and vertical agreements are integral to the very form and nature of the public EV Charging ecosystem. One cannot isolate these agreements from the framework; rather a pragmatic approach should be adopted so that competition law concerns are also addressed.

India cannot afford to compromise on competition to achieve sustainability. The risk of collusion, exchange of commercially sensitive information and subsequent cartelised pricing between individual market players under the green smokescreen is a luxury that a

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<sup>45</sup>NITI AYOOG, 'Handbook of Electric Vehicle Charging Infrastructure implementation' (*NITI Aayog*, 2021) <[https://www.niti.gov.in/sites/default/files/2023-02/EV\\_Handbook\\_Final\\_14Oct.pdf](https://www.niti.gov.in/sites/default/files/2023-02/EV_Handbook_Final_14Oct.pdf)> accessed 13 Aug 2023.

<sup>46</sup>Friso Bostoen, 'Competition Law in the Peer-to-Peer Economy' (2018) Chapter in Bram Devolder (ed.), *The Platform Economy* (Intersentia, 2019) <<https://ssrn.com/abstract=3329980>> accessed 8 August 2023.



developing country cannot afford. Emerging economies lack well-functioning markets. If India must decarbonise its transport industry, P2P roaming agreements and the hub-and-spoke model may seem tempting in the short run but have risks that can tend to restrict and distort competition. There is a need to compete with climate change on most fronts, but competition law is not the most appropriate forum for this synergy to synthesise. The e-mobility ecosystem will need time to mature; however, when it does, in a country like India, it needs to be equipped with sufficient safeguards to ensure compatibility with a complex competition law regulatory landscape.