Regulatory Challenges for Share&Charge Models*

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The platform Share&Charge provides an innovative solution to the lack of electric vehicles charging infrastructure, lying at the crossroad of the electricity market, the transport market and digitalisation. This paper presents the functioning of Share&Charge and its potential, before assessing the tax treatment of operations involved in the use of the platform.

Introduction

Electric vehicle (EV) charging infrastructure is a central aspect of e-mobility deployement. Without a sufficient number of charging stations, consumer appeal for EVs remains low. The German platform Share&Charge offers an innovative solution to this problem by allowing the sharing of EV charging stations and enabling direct transactions between charging station owners and EV drivers in a peer-to-peer fashion[1]. Relying on new technological developments, Share&Charge lies at the crossroads of the electricity market, the transport market and digitalisation. Although this model creates new opportunities for sustainable mobility, it also presents specific features, involving new actors and structures that disrupt existing frameworks and bring new regulatory challenges.

This paper intends to examine some of the legal issues associated with the development of platforms like Share&Charge. The first part briefly presents the functioning of Share&Charge and its potential benefits for EVs scale-up, as well as for the deployment of decentralised electricity production. The second part is dedicated to the tax treatment of operations involved in the use of the platform, assuming that such a scheme would be introduced into the Belgian market. As Belgium is a federal State with decentralised competences, we assume that all actors within Share&Charge are located in the Walloon Region of Belgium. Finally, we conclude with several policy recommendations to foster models like Share&Charge.

Part I. Presentation of Share&Charge – functioning and benefits

Share&Charge is an intermediary platform that provides intermediary services to enable direct transactions between charging station owners and EV drivers (Plenter et al. 2018). It is operated by the company MotionWerk. Via the platform, the operator of a charging station may offer access to it for private and commercial customers. Share&Charge's interactive map makes it possible for EV owners to find a charging station in the most suitable location, for instance at their place of work or where they live. The operators set a price (tariff) on Share&Charge for their offer. The use of Share&Charge is free of charge for the customer, but operators have to pay a usage fee of 15 percent of the tariff to MotionWerk after the charging process. Charging tariffs within the charging station network are determined by the operator, but the platform provides indicative tariffs (Figure 1).

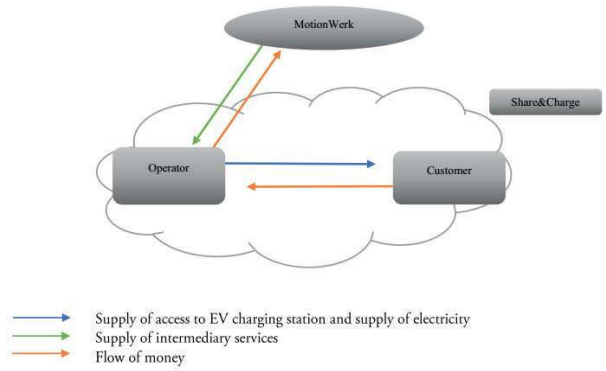

Figure 1. Relations between the users of Share&Charge

Source: Authors'own compilation

Two hypotheses can actually be made with respect to this model. In the first instance, the operators draw the elec-

[1] More information regarding the platform can be found at: https://shareandcharge.com (accessed August 2, 2018).

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tricity necessary to charge the EVs from the main utility grid. By contrast, in the second case, the same amount of electricity is self-produced by the operator, for instance through a photovoltaic installation.

Share&Charge presents certain features that could help in fostering the deployment of e-mobility and of decentralised electricity production. Firstly, Share&Charge help fill the gap of the lack in EVs charging infrastructure, which represents a major barrier to their market diffusion (Sierzchula, Bakker, Maat, van Wee 2014; Bakker and Trip 2013; Graham-Rowe et al. 2012). In particular, Share&Charge enables such infrastructure to be directly financed by individuals and private companies, as cost is being recouped from EV drivers through tariffs set for recharging their vehicles. Secundly, by increasing the number of charging stations, Share&Charge spreads electricity demand over a greater number of locations. This helps lower the impact of EV charging on the electricity grid and on electricity demand (Lopes, Soares, Almeida 2011), which can be particularly problematic in heavily populated areas. Furthermore, where the operator self-produces electricity, and upon condition that the electricity production is sufficient to cover the demand, Share&Charge also enables the reduction of problems related to grid overload and energy losses due to decentralised energy production by enabling electricity storage directly within the EV battery instead of on the grid, thus establishing local electricity consumption through microgrids. This further facilitates the expansion of decentralised electricity production and may reduce the needs for flexibility in the electricity market through a better matching between local energy production and local demand.

Part II. Legal framework and disruption – tax treatment of Share&Charge

Share&Charge presents specific features that pose regulatory challenges. In particular, this business model relies on a multi-sided platform and is based on decentralised electricity distribution and production; following the trend of the so-called sharing economy, it enables peer-to-peer access to EV charging stations and sales of electricity. These distinctive elements defy current tax rules, including those related to energy taxes (1), personal income tax (2) and value added tax (VAT) (3)[2]. Although we concentrate on Belgian tax law, the questions envisaged could be applicable in other countries. They could also provide arguments for further harmonisation at an European Union (EU) level.

Energy taxes

When European directives on the liberalisation of the electricity market were adopted, electricity generation, transmission and distribution were predominantly centralised[3]. This reality has progressively evolved, with the emergence of decentralised forms of electricity production and, more recently, microgrids. Current regulatory frameworks, both at the EU level and at the domestic level appear to have been overtaken by such new market developments. In Belgium, peer-to-peer sale of electricity remains unregulated; there is no specific legal provision that determines which rules should apply when one individual sells electricity to another individual.

The lack of specific framework on peer-to-peer sales of electricity poses several problems regarding energy taxes. Indeed, to determine the person liable for electricity taxes, tariffs and levies in the Share&Charge model, it is necessary to characterise the operators: should they be qualified as 'electricity distributors'(or suppliers) or, rather as 'end consumers'. In Belgian law, there is a clear distinction between these two concepts. An end consumer is defined as "any individual or legal entity buying electricity for *its own use*"[4]. This qualification will give rise to the payment of a number of taxes, levies and tariffs, including taxes on energy consumption and surcharges to support to the cost of a number of public policies and services. On the contrary, electricity distributors, which must be understood as an electricity supplier, qualify as the taxable person for the purpose of the energy contribution (Law of July 22, 1993[5]). They are defined as "the individual or legal entity selling electricity or gas on their account or on behalf of others"[6].

As the law currently stands, there is no clear answer to this paradox. Nevertheless, despite current developments from the Walloon regulatory authority (Cwape) and of the Walloon parliament, it seems hard to consider, without stretching the concepts, operators of charging stations as

[2] Energy taxation is understood in a broad meaning, including taxes sensu stricto, but also other parafiscal levies on energy like fees, tariffs, etc. Issues regarding corporate income tax will not be addressed; we will concentrate solely on the relationships between the operator and the customer. On this question, see the Proposal for a Council Directive of March, 21, 2018 on the common system of a digital services tax on revenues resulting from the provision of certain digital services, COM(2018) 148 final; and the Proposal for a Council Directive of March 1, 2018 laying down rules relating to the corporate taxation of a significant digital presence, COM(2018) 147 final.

[3] See Directive 96/92/EC of the European Parliament and of the Council of December 19, 1996 concerning common rules for the internal market in electricity, Official Journal L27, January 30, 1997 P. 20-29.

[4] See for instance Art. 2, 14°, of the federal law of April 29, 1999 on the organisation of the electricity market, Belgian Official Journal of May 11, 1999.

[5] Federal law introducing an energy contribution to safeguard competitiveness and employment, Belgian Official Journal of July 24, 1993.

[6] Art. 424 of the Program law of December 27, 2004, Belgian Official Journal of December 31, 2004.

end consumers[7]. In the event that these operators are not characterised as end consumers, they would be part of the electricity supply chain, and the end consumer would be the customer of the operator of a charging station. Such a qualification would imply several (undesirable) consequences. Notably, it would characterise operators as the taxable persons of the energy contribution, and require them to obtain a license for electricity supply. These elements call for a legislative intervention, in order to clarify the current legal framework and to adapt it to models like Share&Charge.

Further difficulties arise for users of Share&Charge in relation with the tarriffs charged when access is provided to the charging station. In the Share&Charge model, the operators determine themselves the tariffs to be paid by the customers when charging their EV, even though the platform provides indicative tariffs. Setting the tariffs can be troublesome for the operators although this represents a critical operation; they need to remain competitive with other operators of EV charging stations within Share&Charge but they also should make a profit or at least not lose money. Determination of the tariffs will be particularly delicate when the electricity used to charge the EV is self-produced by the operator. In this instance, they will need to take into account electricity consumed and electricity produced, which can be both unpredictible. For these reasons, and considering the fact that the operator may likely be an individual who does not necessarily have specialised knowledge and experience regarding the electricity market, there could be a case for provision of support services in order to assist the operator in setting appropriate tariffs. This role could be played by existing actors such as distribution system operators or regulators. Alternatively, there could be room for a new market segment to develop.

Personal income tax

Share&Charge represents the perfect example of what is known as the 'sharing economy'. As noted by the European Commission, the collaborative – or sharing – economy obscures and distorts "established lines between consumer and provider, employee and self-employed, or the professional and non-professional provision of services"[8]. Within the Share&Charge model, several issues arise regarding the qualification of pieces of income for the purpose of the personal income tax treatment. Belgian tax law distinguishes between four categories of income: professional income, income from movable property, income from immovable property, and miscellaneous income. Qualifying the form of income is critical as each income category is governed by its own rules, which allows for the determination of what is taxable income, its amount, and the deductions that apply. In addition, it is necessary to determine whether the income resulting from different operations must be taxed separately, under different categories, or instead should be taxed together, within one single category.

Characterisation of the income will depend on the specific elements of each situation; it will be assessed on a case-by-case analysis, based on various criteria such as activity financing with high levels of credits, whether the activity is the extension of or closely linked to a professional activity, the number and the frequency of the operations/transactions and remunerations (Tiberghien 2018, n°1096). Elements such as access limitation to the platform for a maximal cumulated period and for a maximal amount of income generated through the platform represent arguments in favour of non-professional income[9]. Share&Charge's terms and conditions, on the contrary, do not contain such limitations. If the income is regarded as non-professional, it is necessary to determine in which remaining category it belongs: income from movable property, income from immovable property and miscellaneous income. In that case, income resulting from the sale of electricity will be regarded as a miscellanous income[10], while income resulting from the use of the EV charging station within the Share&Charge model should be qualified, in our view, as income resulting from an immovable property. Alternatively, both income could be taxed together, as one single piece of income.

It is interesting to note that since recently, miscellaneous income resulting from the sharing economy benefits from

[7] More specifically see note CD-13k07-CWaPE of September 12, 2013 on the conditions to fulfill for an end consumer to be considered a producer in the specific hypothesis of an ordinary lease or a 'all included' rental of buildings equipped with PV panels, accessible at https://www.cwape.be/?dir=3&news=293, last accessed August, 2, 2018, which complements the Guidelines CD-13k07-CWaPE of September 12, 2013 on the conditions to fulfill for an end consumer to be considered a producer ; decision CD-10d13-Cwape of April 13, 2010, accessible at https://www.cwape.be/?dir=0.2&docid=134, last accessed August, 2, 2018; and decision CD-17h11-Cwape of August 10, 2017, accessible at https://www.cwape.be/?dir=0.2&docid=3248, last accessed August, 2, 2018; Draft bill of January 1, 2018, modifying the Decree of April 12, 2004, on the electricity market organisation for the deployment of smart meters and flexibility, in particular Art. 9, accessible at https://www.cwape.be/?dir=4&news=772, last accessed August, 2, 2018. See also the advice of the Cwape: Advice CD-18c01-CWaPE-1771 of March 2, 2018, on the Draft bill of January 1, 2018, modifying the Decree of April 12, 2004, on the electricity market organization for the deployment of smart meters and flexibility, in particular p. 19, accessible at https://www.cwape.be/?dir=4&news=772, last accessed August, 2, 2018.

[8] Communication of June 2, 2016, COM(2016) 356 final, p. 2.

[9] Belgian Ruling Authority, Ruling n°2015.455 of September 29, 2015. For more information see https://www.ruling.be/fr/telechargement/decisions, accessed August 2, 2018

[10] Chamber of the Representatives, Oral questions n° 5400 et 5401 of 20 May 2008; n° 587 of July 15, 2009.

a preferential tax rate[11]. However, the scope of this favourable scheme is rather narrow as it only applies to benefits and profits resulting from services (Art. 90, 1st lid, 1°bis, Income Tax Code hereafter 'ITC'), exluding income resulting from the supply of goods. Although these concepts are not defined, we would argue that income resulting from the use of Share&Charge must not be considered to result from supply of services. Arguably, one could purport that a portion of the supply should be regarded as a supply of service. In this case, this piece of income would be treated favourably, accordingly with Art. 90, lid 3 ITC.

VAT

Unlike personal income tax which is calculated based purely on national rules, VAT has been harmonised at EU level. To determine the VAT treatment of the transactions, several questions need to be answered including 'who is the taxable person' and 'what are the taxable transactions'. As underlined by the European Commission, collaborative platforms pose several difficulties in this regard: "[p]roblems may arise in respect of the qualification of participants as taxable persons, particularly regarding the assessment of economic activities carried on, or the existence of a direct link between the supplies and the remuneration in kind (…)" (Beretta 2018).[12] In addition, characterisation as a taxable person can be burdensome for individuals, especially when their activity generates modest value, since such qualification implies to fulfil several obligations: notifying the existence of an economic activity, issuing regular invoices, keeping regular accounts and submitting periodic and regular VAT returns, etc[13].

A first issue is to determine who from the operator or MotionWerk must be considered the taxable person vis-à-vis activities supplied to the customer. After, it is necessary to assess whether sharing of the charging station, and the subsequent sale of electricity must be considered an economic activity. The first issue brings us to the delicate distinction between undisclosed agents, who act in the name and on behalf on someonelse, and disclosed agents (or commissioner), who act in their own names. It must be noted that the concept of intermediaries in the presence of platforms has been interpreted in other fields of law by the European Court of Justice, with respect to the platform Uber[14]. In two judgements, the Court concluded that Uber was not a mere intermediation service provider, but rather performed transport services. Nevertheless, because VAT encompasses autonomous concepts, one should be cautious when attempting to draw conclusions from these developments; it is uncertain whether they could be translated to VAT law or not. Depending on the interpretation, the VAT treatment of the operations performed in the context of Share&Charge will profoundly vary.

The second question is to determine whether the operations supplied characterise as economic activities. In Belgian VAT law, a favourable treatment applies to activities of the sharing economy, based on the premise that such activities are not economic activities. Under this scheme, the supply of services performed in the context of the sharing economy is not, upon the respect of several conditions, subject to VAT, and suppliers of these services are not taxable persons for the purpose of VAT. In the case of Share&Charge, because the intervention of the operator of Share&Charge includes a supply of goods (electricity supply), it will fall outside the scope of this favourable scheme.

Ultimately, determining the VAT treatment of operations supplied within Share&Charge requires to qualify these transactions. Electricity supply must be regarded as a supply of goods, while the supply of access to the station is a supply of a service. Both transactions are liable to a VAT rate of 21 percent[15]. Services of intermediation, when MotionWerk is considered an undisclosed agent, arguably constitute electronically supplied services, as referred to in Art. 56 of the VAT Directive. Depending on the interpretation, these operations will be regarded as one single economic transaction or, on the contrary, as two distinct operations[16].

Conclusion and policy recommendations

Markets have entered into a digital age. Digitalisation impacts most aspects of everyday life, ranging from commuting, ordering food, to renting an apartment or a car, or just chatting on the phone. It can be admittedly a source of certain abuse, but it is also a factor of progress, which creates many societal and economic opportunities. Based on this background, the Share&Charge model offers new opportunities for EVs market diffusion and for decentralised electricity production devolpment. To foster business models like Share&Charge, the following modifications to current regulations could be implemented:

- Firstly, uncertainties have been observed regarding the legal qualification of several elements, such as the

[11] Program Law of July 1, 2016, Belgian Official Journal July 4, 2016. See Afschrift 2016; Mariscal & Ickx 2016.
[12] Communication of June 2, 2016 on the Agenda collaborative economy, aforementioned note 34.
[13] Title VIII of VAT code.
[14] E.C.J. Elite Taxi v. Uber Systems SpainSL, C-434/15, December 20, 2017 ; E.C.J., Uber France SAS, C-320/16, April 10, 2018.
[15] Respectively Art. 15 Directive 2006/112 & Art. 9 Belgian VAT code, and Art. 24 & f. Directive 2006/112 & Art. 18 Belgian VAT code.
[16] See notably E.C.J., Město Žamberk, C-18/12, February 21, 2013; E.C.J., Levob Verzekeringen and OV Bank, C-41/04, October 27, 2005, especially § 22; E.C.J., Part Service, C-425/06, February 21, 2008, especially § 53; E.C.J., C-497/09, Bog and Others, especially § 53; E.C.J., CPP, C-349/96, February 25, 1999, in particular § 30.

qualification of the operator with respect to energy taxes, or of MotionWerk as a taxable person with regard to VAT. Yet these are essential to accurately assess the tax treatment of operations associated with the use of Share&Charge. The adoption of guidelines at the EU level or the modification or current directives should be considered to remove unclarity.

- Secondly, one feature of the sharing economy is that transactions and activities are not necessarily performed by professionals. Therefore, if participants are treated just as any professional exercising an economic activity, they may be subject to an excessive burden, which would risk impeding the furtherance of their activities. Current frameworks should be modified to take this element into account. In addition, services could be performed by regulators, DSOs, or by new actors, to assist operators to set appropriate tariffs for the provision of electricity.
- Thirdly, income generated and operations performed by the operator do not currently benefit from any financial support, nor do they benefit from the favourable tax scheme applicable to the sharing economy. Further studies are required to assess whether financial support is needed to foster the development of such a model as Share&Charge.
- Finally, the Share&Charge model merely involves internal relations within one jurisdiction. Many legal questions would arise, including those of tax base erosion, profit shifting and of double imposition, if that was not the case. These issues also deserve due attention among scholars and policy makers.

References

Afschrift, T. (2016, October), 'Le nouveau cadre de l'économie collaborative', Seminar Vanham & Vanham, Brussels, Belgium, Actualités fiscales.

Bakker, S., and Trip, J.J. (2013), 'Policy options to support the adoption of electric vehicles in the urban environment', Transport. Res. Part D: Transp. Environ, 25: 18–23.

Beretta, G. (2018), 'VAT and the sharing economy', World Tax Journal, 10(3): 1-25.

Graham-Rowe, E., Gardner, B., Abraham, C., Skippon, S., Dittmar, H., Hutchins, R., Stannard, J. (2012), 'Mainstream consumers driving plug-in battery-electric and plug-in hybrid electric cars: a qualitative analysis of responses and evaluations', Transport. Res. A Pol. Pract., 46 (1): 140–153.

Lopes, J., Soares, F., Almeida, P. (2011), 'Integration of electric vehicles in the electric power system', Proceedings of the IEEE, 99 (1): 168-183.

Marischal, B., and Ickx, F. (2016), 'Economie collaborative : une imposition de 10% mais un système alambiqué', Act. fis: 32, 2.

Plenter, F., Chasin, F., von Hoffen, M., Betzing, J., Matzner, M., Becker, J. (2018), 'Assessment of peer-provider potentials to share private electric vehicle charging stations', EPub ahead of print 22 February 2018. DOI :10.1016/j.trd.2018.02.013.

Sierzchula, W., Bakker, S., Maat, K., van Wee, B. (2014), 'The influence of financial incentives and other socio-economic factors on electric vehicle adoption', Energy Pol., 68: 183–194.

Tiberghien, A. (2018), Tiberghien. Manuel de droit fiscal 2017-2018 (Liège, Belgium: Wolters Kluwers).