



What is the EV business
model for retail - pick
one out of three



Better life.
With electricity.

THE EV BUSINESS MODELS FOR RETAIL

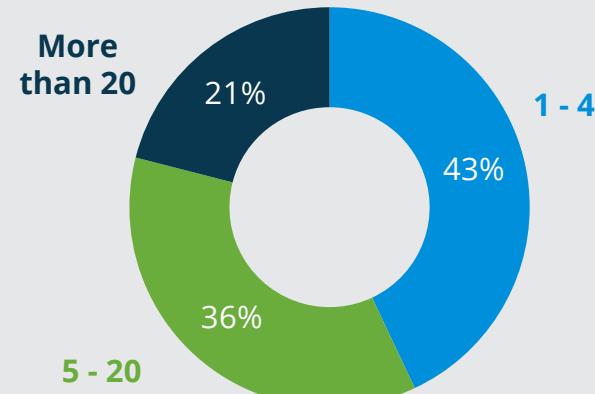
Roll out of electric vehicles to your market is accelerating. Therefore, it is natural that retail must decide on their strategy how to attract customers driving electric to retail locations.

Based on experiences from the US market, EV drivers spend on average 35% more time in retail locations and they select their shopping locations based on where they can charge their EVs easily and efficiently. Longer stay means more business at your location. Therefore, retailers should definitely consider offering EV charging service to clients.

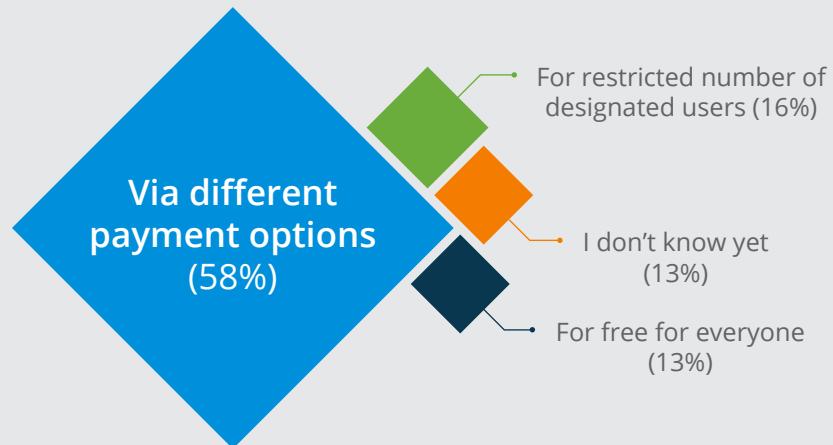
We, at Ensto, often hear our retail clients asking us what is right model for us. We see that retailers have three alternatives to select from.

Retail and shopping centers are actively seeking solutions for EV charging

Number of parking places needed



Required payment options



Result data from Ensto EV charging survey 2017/2018, 330 respondents

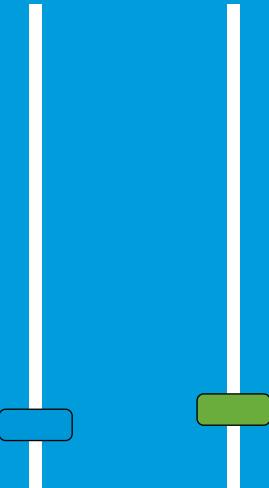
"EV drivers spend on average 35% more time in retail locations and they select their shopping locations based on where they can charge their EVs easily and efficiently."

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1

Give the business to others - selecting operator partner

Control Investment



This is the easiest model, but might be the most expensive alternative and limits the control most retailers have over the customer experience.

Most of the markets are now seeing EV charging operators that approach retail. Operators offer to install EV charging infrastructure to retail facilities. Retail might pay some of the infrastructure and installation cost, but operators sometimes bear the cost for the charging equipment, run the service, invoice customers, offer customer service and yearly maintenance.

In return operators then have the right to run their service for several years. Motivation for the operator is to avoid expensive grid connection fees, peak tariffs and build charging network into highly active locations. In some cases Operators invoice the retailer, on a monthly or yearly fee for the network and compensate retail for the consumed electricity.

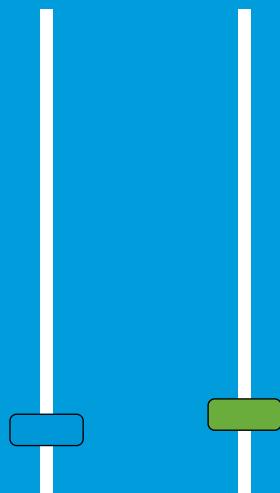
Even if this is clearly the easiest way for retail to start offering EV charging service to their customer, there are still some disadvantages in this model as well. Some retailers may not necessarily see the need for an Operator at all. Consider at least the following:

- ◆ **Effect on your brand and customer satisfaction** - retail is dependent on the operator on service quality, and in many cases retail has limited or no tools to improve the service at the location. If the Operator is delivering a poor service, this will affect your brand image and customer satisfaction.
- ◆ **Operator lock-in** - Eventually the Operator dictates the service pricing they invoice from your customers. Sometimes these fees are high and cause dissatisfaction among your customers. If Retailer has agreed long term land lease as part of the contract they run the risk of being impacted by this for a long time and upsetting customers.

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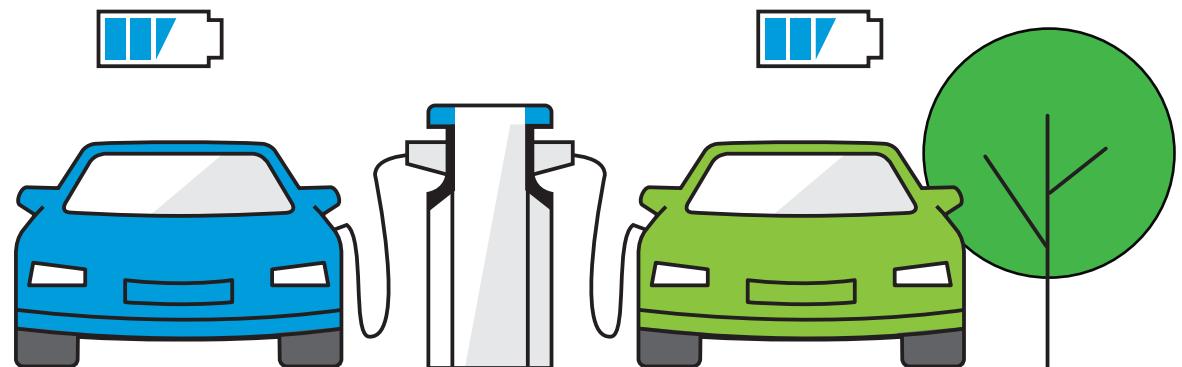
Give the business to others - selecting operator partner

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- ◆ **Betting on the right horse** - A successful operation may be dependent upon the service provided, whether that is reliability, availability, suitable power provision and customer journey. Customers may avoid locations if any or all of these factors aren't met. The selected operator might not eventually be the market leader. Most of the markets are seeing several entities becoming an operator.
- ◆ **Who will own the customer** - Operators use their own mobile apps and cards to identify customers at charging posts. Therefore, you might miss the opportunity to build brand awareness of your apps in EV charging service. You can also use your own mobile application with RestApi integration.

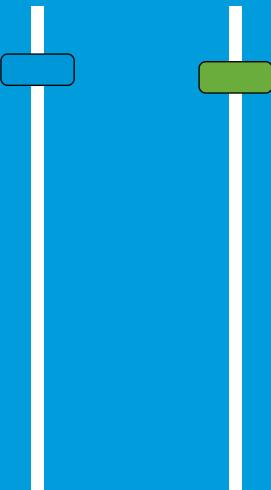
Co-operating with operators might make sense for you, but first it is important that you understand what the operator's business model is and how they expect to cover their CAPEX and OPEX of offered network. This then allows you an informed decision on what best fits your business model. It is good to notice that home EV charging is for many operators the core business and they expand their public network to attract more home charging customers.



2

Build and manage your own service

Control Investment



Clearly, this model gives you the most freedom in defining what kind of charging service you offer to your customers, but this option also requires the most competence, resources and initial CAPEX is highest.

Since all is in your hands, you can define the branding, pricing, customer journey, campaigns, equipment and back end systems in use and make the service exactly correspond your needs. You need to select partners for installation and maintenance. These, in many cases, are the same companies doing technical maintenance in your building and this way service level can be much higher.

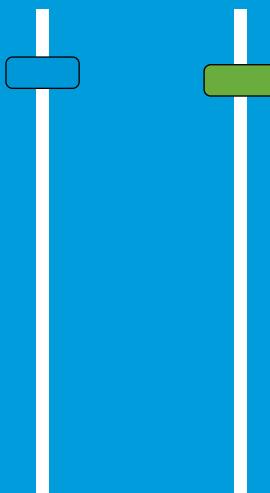
This is the laborious way to launch EV charging service to your customers and these are the things to consider:

- ◆ **Do you have the technical expertise** - EV technology is filled with technical functionality that make a substantial difference how your customers experience the service e.g. charging power, dynamic load management, identification methods, electric security, capability for SW updates, connectivity to back end systems, IT security, how you integrate the service to possible loyalty apps and how to possible invoice customers for the charging. All of this can be very hard to accomplish with a charging provider that hasn't invested in a connectivity platform for their chargers. However it can be quite easy to achieve if you select a provider that has put in significant effort in creating easy to-integrate API's to work with your existing systems.

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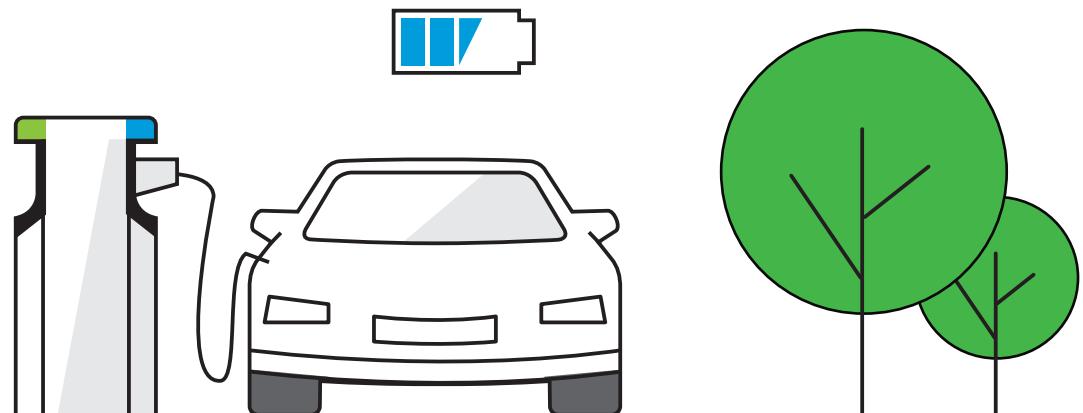
Build and manage your own service

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- ◆ **Can you access the required competence** - Competence is required in planning and selecting the right partners and equipment. EV industry is very young, and this type of competence might be hard to get.
- ◆ **Is your solution future proof** - You need to make your decision about the partners and infrastructure not only based on today's standards and electric vehicles, but also how EVs are evolving in terms of charging power, technology, identification, volume etc.

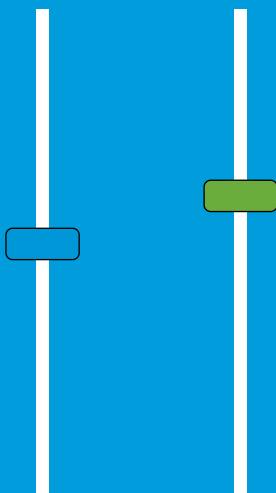
This model might make sense for you, but it is of the utmost importance to select the right partners for the solution and to understand the development of the industry. In this scenario you will be looking for those that have the capability already and can consult the retailer on best processes to maximise opportunity.



3

Collect customers to your hub

Control Investment



Third alternative is combining the previous two models. You will have full control of the service, but you also allow operators' customers to charge their EV and use other payment/ identification methods at your location. This model requires a bit more planning, but ultimately the OPEX/ CAPEX are lower and you can totally define the service that is offered to your customers at your location.

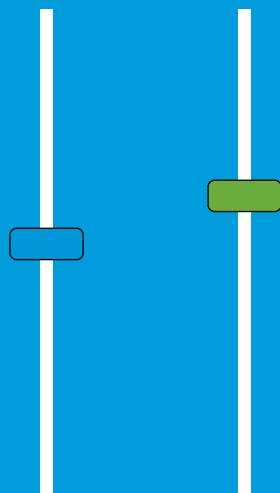
In this model, you control the charging infrastructure and required back end system. Back end system is used as an integration point to different customers systems like operators' payment and identification systems, your own loyalty cards, mobile applications and possible parking applications. The customer selects the suitable identification method and then service journey and possible pricing adjust accordingly. This is similar to the ATMs where the same ATM is used by different cards and brands. In this model, it is important to:

- ◆ **Plan your customer journey and targets** - Plan carefully the desired customer journey and targets, and these are measured. Select a back end system that is easy to integrate with your loyalty system, if you later want to combine loyalty programs with EV charging.
- ◆ **Select the right partners** - Your partner should be capable to offer you advanced solution that includes smart chargers, advanced load management, back end system to integrate with your loyalty cards and apps, third party payment systems and operator systems.

3

Collect customers to your hub

Control Investment



- ◆ **Tap revenue sources from the operators** - Most of the operators' key target is residential charging, but they provide public charging, at least in the beginning, to support their residential charging offering. Over time there will be several operators in this area and many of them are energy companies. By offering operators the possibility to connect to your back end system, you will get network fees from operators to cover CAPEX/OPEX. You may have multiple operators connected to your back end. At the end of the day, it is a win-win situation.
- ◆ **Consider your energy requirements** - Charging requires at maximum power a lot from buildings panel board- max power per socket is 22 kW, and if you have a row of 30 charging points the energy loads will be substantial. Back end system should be able to limit total power, read buildings total power and available power and avoid peak loads, and maybe even be able to balance charging powers with Vehicle-to-building technology.

This model is clearly the most advanced and cost effective, while you have total control over the service provided to your customers.

Our check list for retail sector to launch EV charging service



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Define your targets for the service. To whom the service is offered? For example, is it to reward your loyalty customers, is the service free or does it have a price, are there different identification methods allowed, how you brand your service and equipment. What is the user behaviour at your locations, like average parking time?



What kind of service you are going to offer to the users? This can be measured as "charged" kms/ miles per hour, e.g. 2 kW charging power charges about 13 kms/ 9 miles driving range in one hour. Are your own employees or residential parkers allowed to use charging points when parking is closed from customers.



Spend a little time on understanding EV industry by talking to right people. Things to consider: what are the future EV models, their charging powers, are these charging with single phase or three phase, development in batteries and payment methods. What kind of operators there are now and near future. How charging affects your energy network and how much power you have available, and how to upgrade.

Our check list for retail sector to launch EV charging service

4

Check what the available power in your building is and how to utilise energy services. Eventually you might need to upgrade your grid connection, but prolonging that with advanced load management saves you from additional grid connection costs.

5

How to improve the customer experience with clear service process, self-service tools and instructions. Worst thing you could do is to launch a service that is low quality and thus hurts your brand. And don't forget the Green values and "points".

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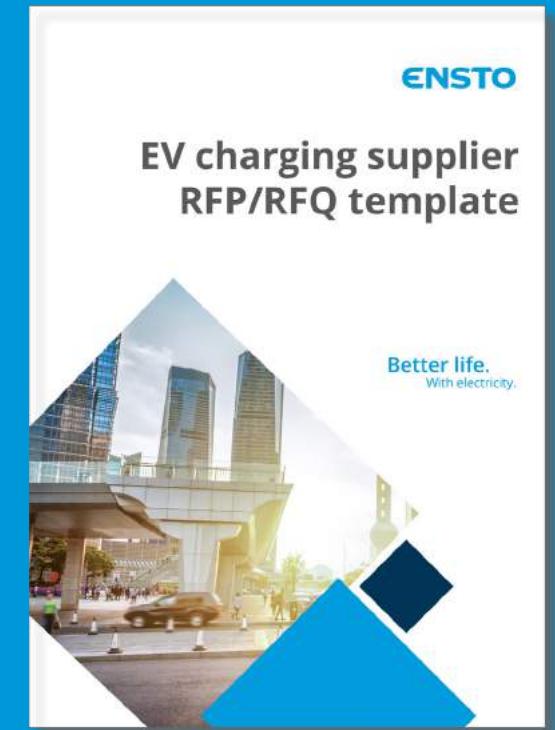
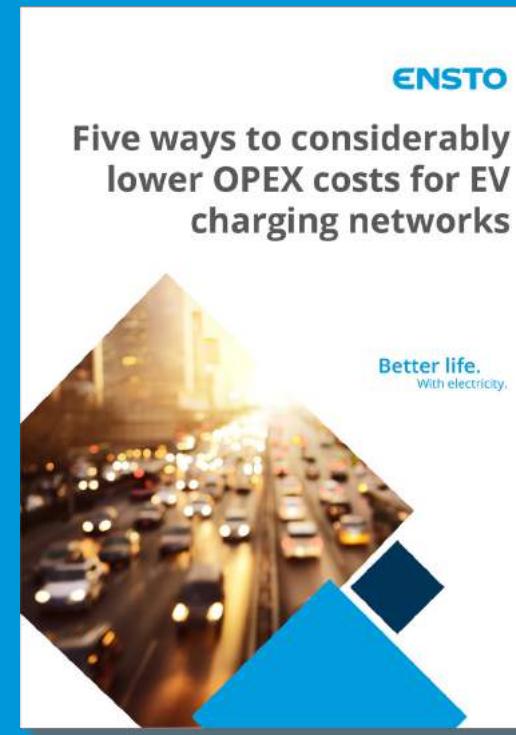
Select partners for installation and maintenance. Very often your existing facility management team is the most suitable for installation and maintenance work, as they already have personnel maintaining your technical equipment.

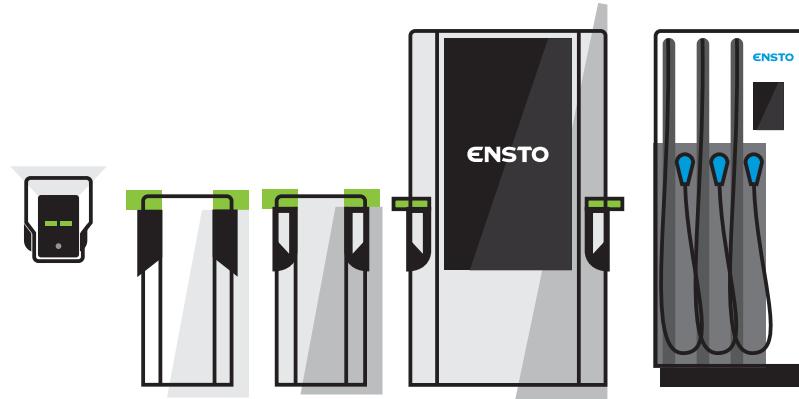
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Avoid lock in to any operator or solution provider. The industry is developing in fast pace and making long term commitments now that are difficult to change later can be expensive and hurt your customer service. Therefore, open interfaces, compliant with standards and open systems are the key to give you the flexibility develop superior customer experience, attract new customers and support your core business case.

This concludes our Overview of the different models within EV Charging currently. It is our hope that this helps to better inform decisions on selection of EV Charging Operation and the impact it may or may not have on your business model and customer journey.

If you would like to learn more about launching successful EV charging service, get to know our other guidebooks:





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