

Biannual report on the price of public charging

Introduction

The Biannual Report on the price of public charging briefly presents the average monthly prices of public charging for private drivers, as well as the factors that have contributed to price variations over the previous five months. Average monthly prices are then categorized according to charging capacity, the presence or absence of a charging subscription, and driving behavior. The associated prices are calculated for 17 operators present on the French market (national, regional and OEM), offering transparent and traceable pricing within the time frame of this report.

Through this biannual report, Avere-France and P3 Group share a common ambition: to provide greater transparency on the cost of public charging, integrating all the pricing elements offered to consumers.

Summary

The report takes a detailed look at the cost of public charging of electric vehicles in France. It analyzes price variations according to parameters such as charging power, subscription, and driving habits. **A typical driver (15,000 km/year) can expect to spend on average between €10.48 and €14.73 per month** to recharge at public charging stations, depending on whether or not a driver has taken out a charging subscription. A heavy-duty driver (30,000 km/year) could spend an additional €64.00, on average.

A direct comparison of the price per 100km of public charging **suggests that public charging is more economical with a subscription.** The least expensive charging costs remain home charging, charging at free charging stations, and charging at the workplace. **As a result, the annual mobility budget of an average driver (85% home charging) is approximately one-third compared with that of a combustion vehicle driver.**

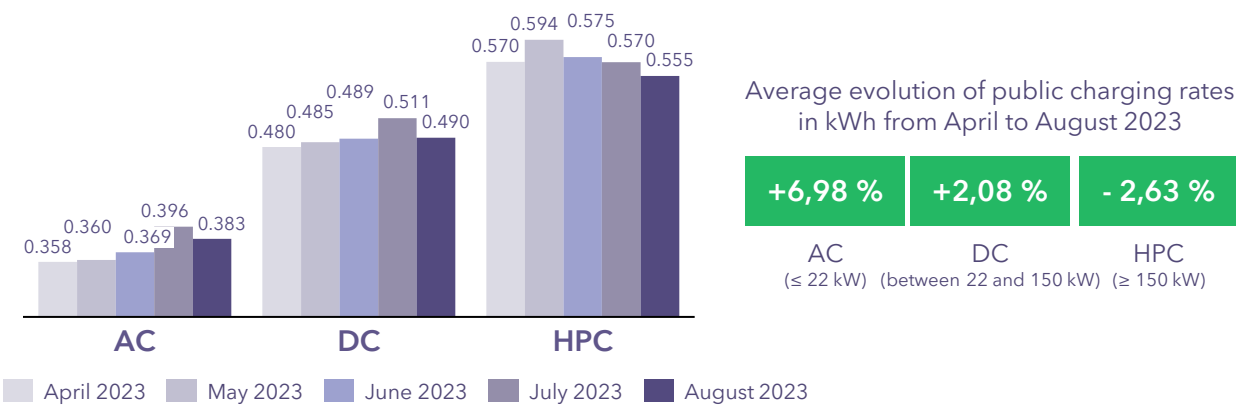
A charging session can be billed by time (min), energy (kWh) or a combination of the two. Other pricing elements make up the overall cost, such as session start fees, end-of-session fees or blocking fees. **Over the past five months, these charges have increased, leading to a slight rise in the final cost of public charging.** This is also the case for ultra-fast charging, despite a drop in the price per kWh.

Overall, average public charging prices have remained relatively stable, with a slight upward trend. In fact, it is not only the energy prices that have influenced the overall cost of a charging session, but also the associated ancillary costs.

Note

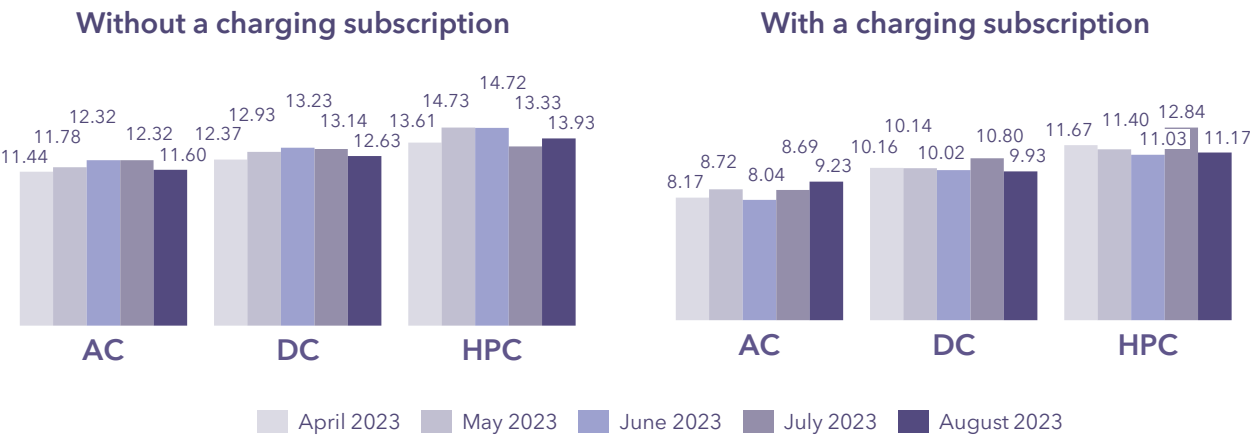
All indicated prices in this report include VAT

Average price per kWh of public charging, excluding ancillary costs [April - August 2023, in €/kWh, incl. VAT]



Only billing based on the cost of energy (€/kWh), excluding ancillary costs, is taken into account in this calculation. As in the rest of the report, the monthly prices analyzed in this graph include all energy offers available on the market, with or without subscription (eMSPs and CPOs).

Comparison of average prices per 100 km for public charging, including ancillary costs [in €/100 km, incl. VAT]

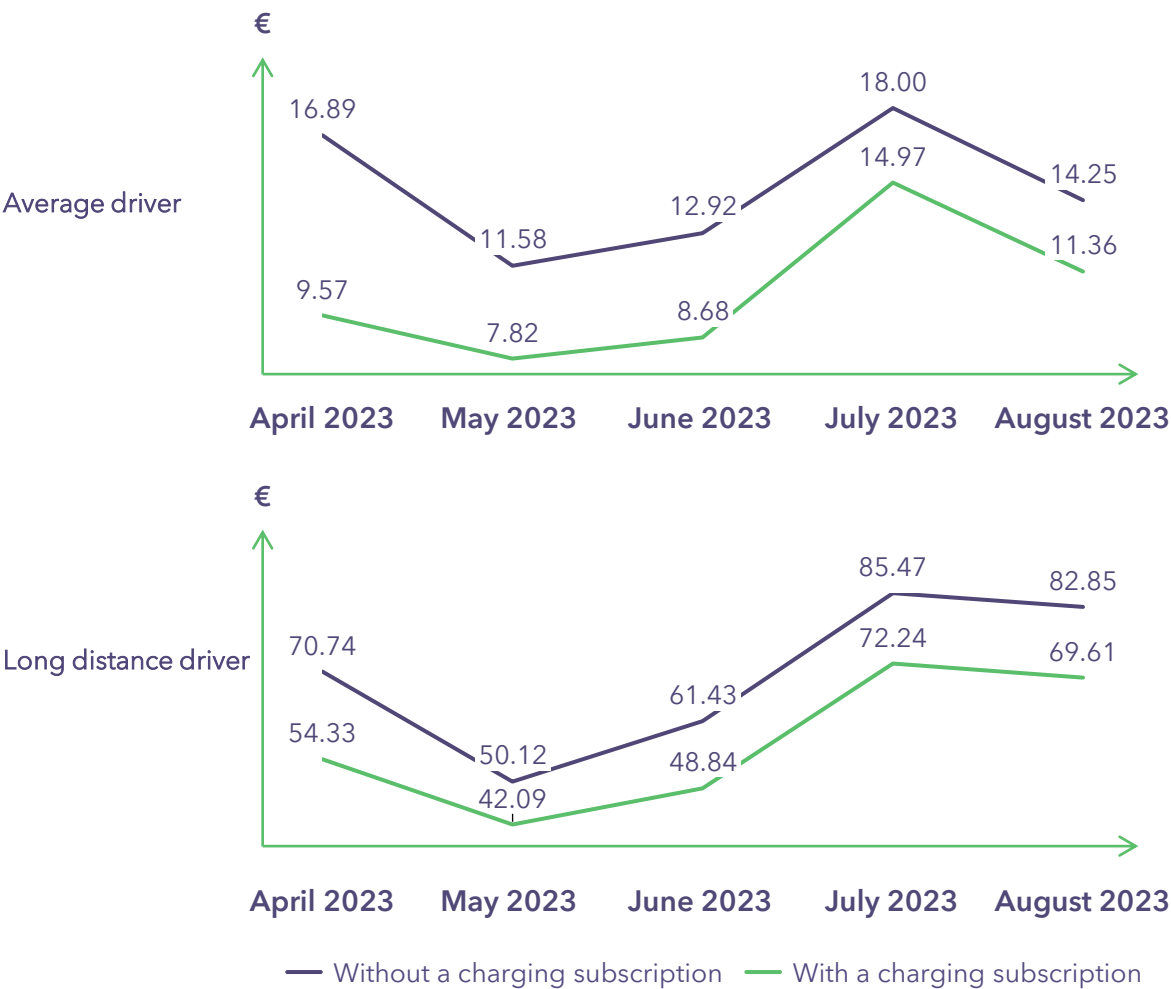


Only session start costs, energy costs and session fees are included in the evaluation of the average price of public charging over 100 km. This average price also takes into account the consumption of the two reference BEVs.

Despite the recent drop in energy costs, **many operators now appear to be cushioning the impact of last year's costs (2022).** In fact, **charging options, regardless of power class, have seen significant increases in the charges** associated with the start of the session-end and blocking fees. Over the same period, ultra-fast charging has seen the biggest increase. **Electric vehicle drivers should be aware that ancillary charges are important variables that can influence the overall cost of public charging.**

Overall, average charging prices have remained relatively stable, with an upward trend.

Average monthly budgets for public charging by driver profile with or without subscription [in €/month, incl. VAT]



Average monthly charging budgets by driving profile are calculated using standardized driving profiles and considering any charging subscription. Most recharges by typical drivers are done in AC charging. Long-distance drivers, on the other hand, are much more dependent HPC charging, which has seen significant increases, particularly in blocking fees.

Based on the last five months, here is the average budget for an electric vehicle driver without a subscription:

Average driver (15,000 km/year) : €14.73
Long distance driver (30,000 km/year) : €70.12

In the case of a charging subscription, the average budgets for public charging are as follows :

Average driver (15,000 km/year) : €10.48 (28.9% saved)
Long distance driver (30,000 km/year) : €57.42 (18.1% saved)

Top market trends in the evolution of charging tariffs

<div>General</div> <div> Change in energy prices</div>	<p>Fluctuating energy prices are strongly influenced by the precariousness of prices on the electricity market. Nevertheless, the basic pricing of energy for public charging remains stable, and even more so for HPC charging. In fact, it is not only energy prices that influence the overall cost of a charging session, but also the associated ancillary costs (e.g., session start fees, session end fees, post-charging parking fees).</p>
<div>General</div> <div> Increased start and end of session fees for AC charging</div>	<p>From August 2023 onwards, there has been a noticeable increase in the start and end of session charges by eMSPs for AC charging. On average, these charges have risen by more than €1.00 compared with the previous month for affected top-up offers.</p>
<div>Without a charging subscription</div> <div> Consolidation of regional operators and syndicats d'énergies</div>	<p>Since May 2023, some key regional eMSPs have been expanding their charging network by integrating syndicats d'énergies under a single brand. The new, standardized tariff offers are often more expensive than previously fixed tariffs.</p>
<div>Without a charging subscription</div> <div> Extension of MSP roaming</div>	<p>Since July 2023, the multiplication of available charging points and the accessibility to a larger number of charge point operators (CPOs), without standardized or preferential tariffs offered by eMSPs, have led to an increase in the average price per charging session for drivers without a charging subscription.</p>
<div>With a charging subscription</div> <div> Transnational CPO changes its pricing model</div>	<p>Between July and August 2023, the reduction in tariffs offered by a transnational CPO could lead to a reduction in ultra-fast charging prices. This reduction is particularly noticeable for recharge offers that benefit from special agreements with this operator, resulting in even more advantageous preferential rates.</p>
<div>With a charging subscription</div> <div> Introduction of new benefits, increasing monthly fees</div>	<p>Between June and July 2023, some eMSPs increased their monthly charging subscription fees. Affected offers were enriched with new benefits, such as the ability to reserve charging stations and lower charges for night-time pricing, replacing per-minute post-charging parking rates.</p>

eMSP: Electric Mobility Service Provider
CPO: Charge Point Operator

Methodology



This Semester Report monitors charging tariffs and costs from the end-customer's point of view over the period April to August 2023. Using a single methodology, the report provides a uniform basis for comparing the tariff models and prices offered by eMSPs on the French market.

The monthly prices offered to the end customer are calculated using standardized driving and charging profiles. This calculation is based on two popular reference vehicles: a long-distance premium SUV and an urban vehicle. These two vehicles differ mainly in terms of energy consumption and maximum fast-charging capacity. In addition, two typical user profiles have been defined:

- **Average drivers** who mainly drive in urban areas for their regular commutes, with a charging option (i.e., a wall-mounted terminal) in their parking space at home, and
- **Long-distance drivers** with a charging option (e.g., wall-mounted terminal) in their home parking space, but who use public charging more frequently to travel longer distances.

Monthly charging costs have been calculated for each type of tariff according to vehicle and user profile.

- **Average driver**
 - 15,000 km/year
 - 85% Home charging, 5% AC public¹, 0% DC public², 10% HPC public³
- **Long distance driver**
 - 30,000 km/year
 - 40% Home charging, 5% AC public¹, 5% DC public², 50% HPC public³

Charging tariffs are broken down as follows:

- **Registration fee:** One-time payment for new users who have not initiated a first charging session with the MSP
- **Monthly fee :** Fixed amount paid per month by the user to be granted access to the MSPs charging network, or a combination of both exclusive inclusions such as preferential pricing, reservation, power allowance etc.
- **Starting fee:** Fixed fee automatically credited to the user upon initiating a charging session
- **Energy based billing:** Accruable fee based per kWh of power consumed during a charging session
- **Time based billing:** Accruable fee (usually per minute) based on the duration a vehicle is connected to the charging station
- **Session fee:** Fixed fee automatically credited to the user upon finishing a charging session
- **Blocking fee :** Additional accruable fee charged to drivers who remain connected to a charging station after full battery completion or after an elapsed duration

¹ AC: less than or equal to 22 kW



² DC: between 22 and 150 kW

³ HPC: greater than or equal to 150 kW



Methodology

The following reference vehicle profiles were selected for this report, based on their ranking in terms of new vehicle registrations in France. Additional criteria such as battery/fuel tank capacity and fuel consumption were also taken into account to distinguish between urban and premium vehicles.

Reference **Battery Electric Vehicles** (BEV) profiles

 Urban BEV¹	50 kWh battery capacity 362 km autonomy (WLTP autonomy declared by OEM) 13.8 kWh consumption / 100 km
 Premium BEV¹	75 kWh battery capacity 514 km autonomy (WLTP autonomy declared by OEM) 14.6 kWh consumption / 100 km

Reference **Internal Combustion Engine** (ICE) vehicle profiles

 Urban ICE²	42 L fuel tank capacity 793 km autonomy (WLTP autonomy declared by OEM) 5.3 L consumption / 100 km
 Premium ICE²	60 L fuel tank capacity 952 km autonomy (WLTP autonomy declared by OEM) 6.3 L consumption / 100 km

¹ BEV: Battery Electric Vehicle
² ICE: Internal Combustion Engine

Limitations of the report

Not all eMSPs active in France can be included in this report, as many do not publish their prices or make them publicly available online without an active (non-ad-hoc) subscription. In addition, these missing eMSPs did not provide pricing information in response to our requests by e-mail, phone call or online form. The availability of this information would increase price transparency for all drivers, so that they can compare and be better informed when choosing the charging offer that best suits their driving profile.

Disclaimer

This independent report is not intended to serve as an indicator or measure of quality, reliability, user experience or network coverage (in terms of number of charging points) for any of the eMSPs analyzed in this report.

Avere-France and P3 Group have not received any funding or sponsorship from the eMSPs included in this report, for the services listed above.

Breakdown of the average price of a charging session [in €/session, incl. VAT].

Assumptions for a typical charging session, depending on the charging power option chosen

Charging power class	Option 1 : Energy-based billing	Option 2 : Time -based billing	Option 3 : Energy and time-based billing
AC (less than or equal to 22 kW)	15 kWh consumed	200 minutes	-
DC (between 22 and 150 kW)	30 kWh consumed	40 minutes	-
HPC (greater than or equal to 150 kW)	40 kWh consumed	-	40 kWh consumed et 25 minutes

Estimated average costs for a typical charging session

	Without a subscription			With a subscription		
Tariff component	AC	DC	HPC	AC	DC	HPC
Session start fee	6.32	1.38	1.24	1.56	2.00	0.82
Option 1 : Energy-based billing	6.88 [€0.45 /kWh]	18.00 [€0.60 /kWh]	25.44 [€0.64 /kWh]	6.48 [€0.43 /kWh]	16.56 [€0.55 /kWh]	25.44 [€0.64 /kWh]
Option 2 : Time-based billing	33.6 [€0.17 /min]	13.44 [€0.34 /min]	-	26.4 [€0.13 /min]	14.40 [€0.36 /min]	-
Option 3 : Energy and time-based billing	-	-	33.84 [€0.64 /kWh & €0.34 /min]	-	-	37.44 [€0.64 /kWh & €0.48 /min]
Session end fee	1.69	0.84	0.68	0.60	0.60	0.60
TOTAL						
Option 1	14.89	20.22	27.36	8.64	19.16	26.86
Option 2	46.80	15.66	-	28.56	17.00	-
Option 3	-	-	35.77	-	-	38.86
OPTIONAL						
Blocking fees	0,34 €/min	0,42 €/min	0,22 €/min	0,12 €/min	0,14 €/min	€0.17 /min

Notes:

- Price component averages are calculated by taking into account all eMSPs, charging offers and standardized driving profiles (see p. 6);
- As far as HPC charging is concerned, there is no pricing based solely on time. Therefore, the calculation for the HPC charging option includes the total amount of energy consumed (in kWh) as well as a combination of time-based and energy-based pricing;
- It's important to note that not all eMSPs and CPOs apply start or end of session charges. There are also cases where some operators combine pricing based on the amount of energy consumed and the duration of connection..