



26.1 Major Developments in 2017

26.1.1 The Ecological Bonus

The bonus system aims to reward purchasers of new cars or vans emitting from 0 to 20 grams of CO₂ per kilometer through long-term purchase or lease financing (2 years and more). Set up in 2008, the bonus is reviewed annually in order to adapt to the evolution of the offer of low-emission vehicles.

The bonus applies to new vehicles belonging to the category of passenger cars, vans and specialized motorized vehicles, as well as to two- or three-wheeled vehicles and quadricycles. Vehicles eligible for the bonus may be registered by individuals or by companies. Used vehicles are not eligible.

Table 1: Ecological bonus for CO₂ emissions of vehicles in France

CO ₂ emission rate (in grams per kilometer)	Type of vehicle	Amount of the bonus on 1 January 2018 (in EUR)	Remarks
0 to 20 g	Private car, van or specialized motor vehicle	6,000 (up to 27 % of the acquisition cost)	This corresponds to pure battery electric vehicles and range extender electric vehicles
Without threshold	Motor vehicles with 2 or 3 wheels and quadricycles with electric motors, which have an engine maximum net power of not less than 3 kWh and do not use a lead-acid battery	250 per kWh of battery energy (up to 27 % of the acquisition cost, up to a limit of 1,000 EUR)	This only concerns electric vehicles
Without threshold	Motor vehicles with 2 or 3 wheels and quadricycles with electric motors, which have an engine maximum net power less than 3 kWh and do not use a lead-acid battery	100	This only concerns electric vehicles

Used vehicles are not eligible. Also plug-in hybrid vehicles will no longer be eligible for the bonus in 2018.

26.1.2 The Ecological Malus

The ecological malus is a first registration tax on the most emitting vehicles of carbon dioxide.

Via a registration tax the ecological malus aims to encourage consumers to acquire new passenger cars emitting the least CO₂. This tax aims to cut global warming by reducing greenhouse gas emissions from transport. The scale of the penalty is progressive: the higher the CO₂ emissions of the vehicle, the higher the penalty (from 50 to 10,500 EUR).

The bonus-malus automobile scheme is designed to balance the amount of aid paid under the bonus and the conversion bonus by amount of revenue from the malus levied on passenger cars with the highest CO₂ emissions. Thus, revenues from the malus, due by buyers of passenger cars emitting more than 119 g CO₂/km, are entirely dedicated to financing aid for the acquisition of the most virtuous vehicles, including cars and electric vans.

26.1.2 The Conversion Premium

As part of the Climate Plan, the French Government wants to accelerate the renewal of the old and polluting car fleet by helping buying a cleaner new or used car in exchange for the scrapping of an old vehicle.

The conversion premium is for private and professional users. The old scrapped vehicle must be a car or van, with a gross weight which does not exceed 3.5 tonnes. It should also meet the following criteria:

- taxable household / professional: diesel vehicle registered before 2001 and gasoline vehicle registered before 1997;
- non-taxable household: diesel vehicle registered before 2006 and gasoline vehicle registered before 1997.

The amount of the premium depends on the vehicle and the tax situation of the household:

- purchase of a used electric vehicle or a new or used Crit'air 1 or 2 ICE vehicle (petrol or diesel), emitting less than 130 g CO₂/km: 1,000 EUR for a taxable household, 2,000 EUR for a non-taxable household;
- purchase of a new electric vehicle: 2,500 EUR, without condition of income;

- purchase of new motorized two-wheelers or three-wheelers or quadricycle: 100 EUR for a taxable household, 1,100 EUR for a non-taxable household.

New electric vehicles receive an ecological bonus, which may be added to the conversion premium.

26.1.3 Air Quality Certificates: Crit’Air

The air quality certificate is a self-adhesive sticker to stick on the vehicle, which indicates its environmental class according to its emissions of atmospheric pollutants.

There are six classes of certificates. The air quality certificate promotes the least polluting vehicles:

- Favorable parking arrangements;
- Privileged traffic conditions;
- Possibility of driving in Low Emissions Zones.

The air quality certificate is mandatory to circulate in low emissions zones established by certain communities (Paris). The vehicles are divided into six environmental classes, with the exception of the most polluting vehicles, which are not classified and are not entitled to the air quality certificate.

The classification depends on the type of vehicle (passenger cars, two-wheelers, tricycles and quadricycles, light commercial vehicles and heavy vehicles including buses and coaches), its engine, and the European emission standard it respects (Euro standard). A specific class is set for electric vehicles.

The air quality certificate can therefore be used by local authorities to ensure that the least polluting vehicles benefit from privileged parking conditions or can enter into low Emissions Zones.

26.1.4 Low Emissions Zone

The law on the energy transition for green growth offers the possibility to the communities that wish to set up low emissions zones with restricted circulation for the most polluting vehicles, on all or part of their territory, in order to protect the population health in areas regularly subject to air pollution.

Vehicles in the Low Emissions Zones must have an air quality certificate.

26.1.5 Financing of Charging Infrastructures

The Government has put in place a series of measures to promote the deployment of the charging infrastructure network for electric vehicles.

Depending on the type of infrastructure and the entity leading the deployment project, there are various financial aids to the installation of a charging point:

- **Communities:** Several editions of the Program “Investment for the Future” helped to provide 61 million EUR for the installation projects of more than 20,000 charging points, largely supported by local authorities.
- **SMEs and artisans:** The ADVENIR program has encouraged the installation of 12,000 private charging stations in car parks (shops or businesses) and in collective housing through financial assistance.
- **The installation of private charging stations is also helped:** individuals can benefit from a 30 % energy transition tax credit for the installation of a charging plug.
- **The Government also promotes the development of the infrastructure network through its legislation.** A decree on the pre-equipment of parking spaces during the construction of buildings was published. A decree from January 2017 on recharging infrastructures for electric vehicles implements various measures to transpose Directive 2014/94 / EU on Alternative Fuels Infrastructure. This decree will allow a homogeneous development of the charging points by regulating in particular the power according to the type of recharge, the interoperability, and the access to the recharge.

Table 2: Aid for infrastructure deployment in France

Accessibility	End-User	Aids	Amount
Private	Citizen	Tax Credit Energy Transition	Credit of 30 % of the cost of the infrastructure
Reserved for a resident	Collective residential	ADVENIR	50 % of the cost (material + installation), ceiling at 960 EUR
Shared between the inhabitants	Collective residential	ADVENIR	50 % of the cost (material + installation), ceiling at 1,660 EUR
Employees and fleets	Business	ADVENIR	40 % of the cost (material + installation), ceiling at 1,360 EUR
Semi-Public (Public access on private sites such as supermarket parking)	Business	ADVENIR	40 % of the cost (material + installation), ceiling at 1,860 EUR
Public	Business	National operators project	Exemption from the occupancy charge

Public	Communiti es	Program “Investment for the Future”	Grants according to the project
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26.2 HEVs, PHEVs and EVs on the Road

26.2.1 Electric Passenger Cars

With 30,921 vehicles registered in 2017, the electric vehicle market continues to grow. Electric cars account for 1.2 % of new vehicle registrations in 2017. However, growth is stagnating: in 2017, registrations increased by only 13 %, compared to 23 % in 2016 and 47.5 % in 2015. This slowdown is a reminder of the fragility of the market and the importance of state support for its development.

The Renault Zoe Still Dominates the Market

The passenger car market remains the most important with 25,983 new registrations (up 14 % year-on-year), or 1.47 % of new passenger car registrations, compared with 1.35 % in 2016. Like last year, the Renault Zoe gets the biggest share of sales with 15,245 units (58.6 % of sales). Better, with a 34 % increase over one year, the Renault Zoe gains market share thanks to its new offer with a range of 400 kilometers. The Zoe is followed by the Nissan Leaf with 2,381 cars sold, down 38 %, and the BMW i3, with 1,954 registrations (including 1,073 with a range extender) up 45 %.

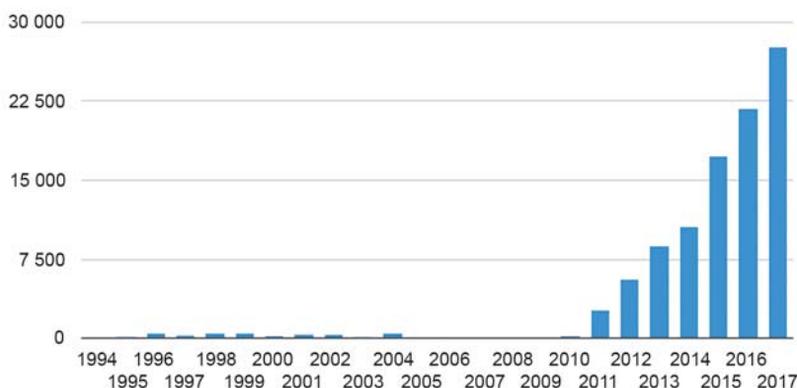


Figure 1: Evolution of BEV sales for passenger cars (Source: ADEME, France)

26.2.2 Electric Light Commercial Vehicles

The market for electric commercial vehicles reaches 6,011 new units, an increase of 8 %. The Renault Kangoo remains the leader in the sector with 2,546 units (up

7 %), followed by the Zoé (675 registered models, up 67 %) and the Peugeot Partner (660 vehicles, up 50 %).

26.2.3 PHEVs

In 2017, 13,458 PHEVs were registered, compared to 6,467 in 2016, representing a progression of +108 %. This strong increase can be explained by fiscal incentives (bonus, conversion premium) refocused on these vehicles in 2017 and the technological maturity of the market on this type of model which allows the supply of greatly expand.

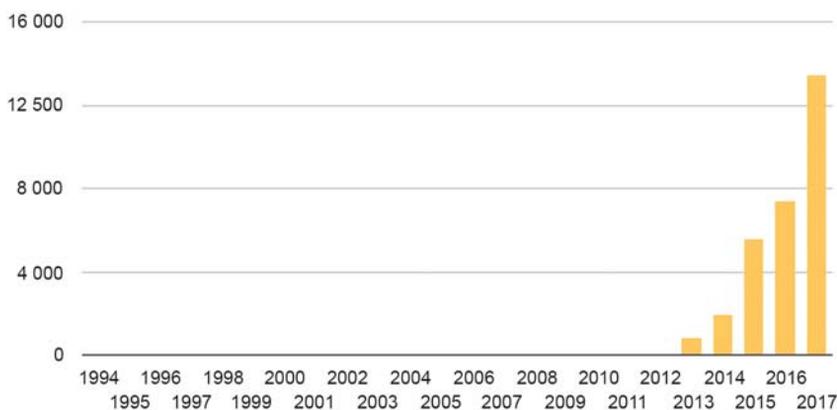


Figure 2: Evolution of PHEV sales for passenger cars (Source: ADEME, France)

26.3 Charging Infrastructure or EVSE

The number of public charging points increased by +35.5 % in one year on the national territory. Ile-de-France, Auvergne-Rhône-Alpes, and New Aquitaine are the most equipped regions.

Today, 20,048 parking spaces, divided into 7,242 stations open to the public, allow to charge an electric vehicle. The charging point network is up 35.5 % from last year (14,799 charging points out of 4,507 stations). A network to which charging points at home and at workplaces can be added (estimated at 106,000 charging points).

This acceleration was achieved thanks to the deployment of local Government networks, partly financed by the State, and the proliferation of private initiatives.

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Table 3: Information on publicly accessible charging infrastructure in 2017 in France (Data source: EAFO and ADEME)

Charging Infrastructure on 31 December 2017	
Chargers	Quantity
Normal Power (<=22kW)	14,407
High Power (>22kW)	1,858
Totals	16,265

Table 4: Distribution and sales of EVs, PHEVs and HEVs in 2017 (Data source: Global EV Outlook, EAFO, ACEA)

Fleet Totals on 31 December 2017					
Vehicle Type	EVs	PHEVs	HEVs	FCVs	Totals ^e
Passenger Vehicles ^a	115,000	6,470	283,670	n.a.	33,263,00
Buses and Minibuses ^b	350	n.a.	750	n.a.	94,000
Light commercial vehicles ^c	28,151	30	950	n.a.	4,511,000
Medium and Heavy Weight Trucks ^d	100	n.a.	n.a.	n.a.	1,272,000
Totals	143,601	6,500	285,030	n.a.	39,140,000

Total Sales during 2017					
Vehicle Type	EVs	PHEVs	HEVs	FCVs	Totals ^e
Passenger Vehicles ^a	25,983	13,458	76,544	n.a.	2,304,119
Buses and Minibuses ^b	n.a.	n.a.	n.a.	n.a.	n.a.
Light commercial vehicles ^c	6,011	n.a.	340	n.a.	n.a.
Medium and Heavy Weight Trucks ^d	n.a.	n.a.	n.a.	n.a.	n.a.
Totals	31,994	13,458	76,544	n.a.	2,304,119

n.a. = not available

^a UNECE categories M1

^b UNECE categories M2-M3

^c UNECE categories N1

^d UNECE categories N2-N3

^e Including non-electric vehicles

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Table 5: Available vehicles and prices in France in 2017

Market-Price Comparison of Selected EVs and PHEVs in France	
Available Passenger Vehicles	Untaxed, Unsubsidized Sales Price (in EUR)
BMW Serie I	38,865
Bollore Bluecar	18,217
BYD E6	25,000
Citroën C Zero	26,900
Ford Focus	32,900
KIA Soul	36,117
Lumeneo Neoma	44,012
Mia	23,658
Mini	29,872
Mitsubishi i-MiEV	33,980
Nissan Leaf	26,900
Nissan NV 2000	26,600
Peugeot iOn	23,257
Renault Fluence	25,156
Renault ZOE	87,987
Smart ForTwo	n.a.
Tesla Model S	37,590
Tesla Roadster	23,260
Think City	38,865
Volkswagen Golf	18,217
Volkswagen IP	25,000
Volvo C30E	26,900

n.a. = not available