

BARCELONA-MADRID IN ZERO EMISSION CAR

The A2 highway "Zero Emissions"



Pillar of Zaragoza zero emissions is sighted from the Tesla S model in its journey from Barcelona

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I have been privileged to once again get behind the wheel of the Tesla Model S to travel 642 km from Barcelona to the Sierra de Madrid.

This time, it is one of the vehicles of the friends of [Barcelona Green Electric Cars](#), the pioneer in Spain in the rental of zero emission vehicles Brand [Tesla Motors](#). I said [Borja Cabrera Costa](#), his alma mater, fortunately the rental activity of electric vehicles is booming. They are very good news.

Despite the wide range of Tesla Model S and being a vehicle designed to enjoy travel long distances, you need to recharge your batteries every three hundred-odd kilometers, contained in more than driving.

It is prepared, like other 100% electric vehicles already on the market, for a recharge in minutes, but it requires an outlet with conditions that is practically impossible to find on the A2, the highway linking Barcelona with Madrid.

And I say, specifically, that there is no outlet in position to make a fast charge for electric power even with idoneo- amperage and can install a wall, you are everywhere.

In China are taking advantage of public lighting tended to put electric sockets for charging points = vehicles, streetlights streets and service areas.

So, A2, like all highways and Spanish highways are prepared for, from overnight to give access to recharging electric vehicles that allow zero transport emissions passengers by road and thereby drastically reducing the footprint carbon.

To make the trip Madrid Barcelona comfortably at 110-120 km / h with an electric vehicle autonomy Tesla model S, enough with a couple of quick charging points. To be able to do with other vehicles on the market that do not reach half of the autonomy of Tesla, the route with 6 quick recharge areas evenly distributed along the route would be ensured.

Barcelona is being equipped with an infrastructure of fast charging points free access that is facilitating the development of sustainable mobility. Not so in Madrid. We discussed in this week's podcast Radio Zero Emission -link down. But for this particular trip, also we missed the charging infrastructure and road trip in Ecuador, Zaragoza.

As I said how difficult and expensive it is really wirings and "whooooole" work and investment that has been done. Terminals / connections recharge may be all sophisticated and intelligent desired but the reality is that just an outlet and an adapter terminal type for each car.

Any outlet 11 or 16 amps, so to speak, any household outlet to recharge applies an electric vehicle, with no risk and cost of laughter. More than ten times lower than that of gasoline, when leaving our pocket.

And for a quick charge, we need even more amperage and voltage, if the vehicle permits. Likewise these conditions are found in lighting and utilities and in most establishments such as hotels, garages, warehouses, gas stations and many residences with air conditioning and water purification equipment pool.

In Zaragoza I have recharged in a hotel, which like many others, as the [Paradores](#) that are added to provide this service, all you have to do is place a terminal in the network, along with a garage.

To give you an idea, batteries Tesla Model S high-capacity 85kW, when they are fully discharged, in a conventional household outlet (technical name: schuko) takes almost 48 hours to charge two days!

In making hotel and three-phase 32A, it is less than 4 hours. In Tesla super chargers installed in Europe of free use, for life, for users of vehicles and Tesla plans to install in Spain - and hopefully it will and not to surface impulses that myopic interests impidan- it, the same car is recharged in 40 minutes.

Although these boots as "beasts" only recommend charging up to 80% of the battery. Recharged every 10 minutes 100 km of autonomy.

I show in a photo taken from the type of hotel, most conventional industrial use. The terminal cost differential is less than 100 euros -¡igualito a gas station! -.

I will also let graphic testimony of the details of consumption: 197 w / h km on average and a total of 126.3 kw / h consumed in the 642.6 km covered. And the obligation to run below 90 km / h to achieve the charging point midway.

You will see that thanks to the more efficient, super contained driving, I got to get to Zaragoza, after traveling 305 km, with an 19% charge in the battery which allowed me to recharge in 3 hours, to continue the journey.

The second stage, the longest of 337.2 km, at night, with temperatures below zero (low temperatures disempower) and strong lateral wind was fairer.

I got better conservative estimate of the onboard computer that even circulating super soft below 90 and 80 km / h, on several occasions, I noted in incarnate message that even traveling at moderate speed, you need another refill to reach my destination. Not very encouraging.

Going behind the slowest truck in the uphill-always seemed to many and largas- and seeing their drivers looked at me puzzled to get ahead in the plains, I got to spend another red yellow message that encouraged me to go at a moderate speed for ensure reaching the destination.

And more moderate moderate supposed to pass dangerously reckless. So, firm in my limits and safe driving moderation as efficient as possible, I got too disappear the yellow notice distinguiréis in another photo.

On leaving Zaragoza implementing estimate remaining battery percentage basis of the topography and average speed permitted parameters ... I encouraged me away with 15% negative. That is, informing me that missing 15% of energy to reach the destination.

Based on patience and tenacity, I got 15% negative in the end it became a 13% charge remaining positive destination and 58 km of autonomy, as the electronic brain of the car. So after covering the 337.2 km of the second and final stage, having started with the batteries fully loaded. I leave you dig you another number, if you have humor.

We are getting closer to eradicating outdated dependence on fossil fuels to finally embrace the possibilities that we already have for a generation and a rational and sustainable use of energy.

As always, I encourage you, despite the woes of the shortcomings of roadside recharging outlets, I feel encouraged to add momentum and you will go to encouraging pasaros driving zero emissions and renewable energy generation. I wish you a healthy and sustainable lifestyle.

Zero Emission Radio Podcast: <http://youtu.be/xWd6zzneSlk>
