MINI E FIELD TRIAL FAQ

ABOUT THE UK RESEARCH

HOW MUCH IS THE MINI E UK RESEARCH RENTAL PAYMENT?

The monthly payment will be announced when we open the online driver application process for the MINI E UK research. But MINI E drivers in the UK won't be paying for petrol, insurance* or maintenance. Further, the driver of a MINI E will be eligible for other benefits like zero congestion charges in London.

Please see the Day-to-Day Use section, point 2, for more details.

* Conditions will apply.

WHAT'S REQUIRED OF MINI E UK RESEARCH PARTICIPANTS?

To be eligible for the MINI E Field Trial, the applicant in the UK needs to be resident in a small test area in the South East of England, we will announce this when the online application process opens in early September. Also, they will need to meet our list of requirements, including (but not limited to) things like access to a private garage, private car port or private driveway, providing regular feedback to our research team and having access to back-up transportation.

WILL MINI E UK RESEARCH PARTICIPANTS NEED TO PROVIDE ANY FEEDBACK TO MINI?

The MINI E is going to teach us a lot about bringing an all-electric vehicle to the market. To help us better understand the impact of this vehicle, UK Research participants will be asked to provide additional information about their experience to our research team. Additionally, a data-logging device will be installed in the vehicle, allowing us to measure performance data such as how much power the MINI E is using or how far people generally drive.

DO UK RESEARCH PARTICIPANTS HAVE TO HAVE PRIOR EXPERIENCE WITH A HYBRID OR ELECTRIC VEHICLE?

No. They only need have experience of driving a car. It works pretty much the same. Acceleration and deceleration takes some getting used to and we'll help MINI E drivers with the "plugging in" part. Other than that, they'll just need to be aware of the vehicle's battery range and remember to plug it in every day to recharge.

HOW ARE UK RESEARCH PARTICIPANTS CHOSEN?

We're seeking a small number of pioneering drivers who possess the enthusiasm and patience to help make the MINI E UK Research a success. And that's why the UK Research Application process is quite thorough.

In addition to meeting a detailed list of requirements, we need to make sure we're finding a diverse group of people who sincerely want to help us plot the course to the future. This is an incredibly important programme for MINI and the BMW Group and selecting UK Research participants who understand that and understand the project's research-orientated nature is critical. You don't have to own or drive a MINI to participate.

WHY ARE THERE ONLY UP TO 40 MINI E VEHICLES AVAILABLE IN THE UK?

We'd love to make more. But the simple reality is that right now 100% electric vehicles need testing in the field before they're ready for mass production. That's why we're conducting this limited UK Research with the MINI E to learn more about how they perform in real-world, day-to-day situations.

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ABOUT THE UK RESEARCH

WHY IS THE MINI E ONLY AVAILABLE IN SUCH A LIMITED AREA?

There's a significant amount of effort required to maintain the programme, including installation of the wall boxes, specially trained personnel and specialised facilities for servicing the vehicles. And all that work means that for now, in the field trial stage of this vehicle's evolution, we can only really run the programme efficiently if it is limited to a specific area.

As for why we ended up choosing South East England, there were several deciding factors. First off, it's important to remember that the MINI E has a fairly limited range. While it achieved a range of 156 miles on a single charge during optimal laboratory testing*, drivers will likely get between 100-120 miles based on normal driving style and conditions. So that means that it's ideally suited for dense urban areas where typical drivers don't drive long distances each day.

Secondly, of course we had to take into account the territory covered by Scottish and Southern Energy, our infrastructure partner.

* 156 miles under ideal conditions. Vehicles were tested according to California Test Procedures for 2005 and subsequent Zero-Emission Vehicles, amended 19 December 2003.

HOW RELIABLE IS THE MINI E?

Generally, with fewer parts in the vehicle, the reliability increases. As this vehicle has fewer parts than its MINI counterpart, we expect this vehicle to have a good reliability record.

It will be important for people to remember that this is a field trial and although extensive testing has already been done, this programme is the first time the MINI E will be tested for an extended period under real-life conditions. So, there are bound to be some hiccups now and then. But we'll be providing Roadside Assistance and specially trained personnel to service the vehicles whenever something goes wrong.

And as MINI E pioneers, UK Research participants will proudly go down in MINI history as a widely respected group who helped pave the road to the future for us all.

ARE THERE SPECIAL INCENTIVES FOR DRIVERS OF ELECTRIC VEHICLES?

In addition to the obvious cost savings from not needing to buy petrol, MINI E owners may also benefit from additional incentives for alternative fuel vehicles. For example, the MINI E is exempt from the London Congestion Charge. Also, depending on the circumstances, paying lower electricity rates.

WHY DO UK RESEARCH PARTICIPANTS NEED A PRIVATE GARAGE, PRIVATE CAR PORT OR PRIVATE DRIVEWAY?

A private garage is needed to install the high-power wall box that charges the MINI E. On-street parking is not an option.

MINI E FIELD TRIAL FAQ

ABOUT THE UK RESEARCH

HOW MUCH SPACE DO MINI E UK RESEARCH PARTICIPANTS NEED IN THEIR GARAGE FOR THE CHARGING UNIT?

They'll need a shade under 0.4 square metres of available and easily accessible wall space for the 0.6 x 0.6 metres wall box. The wall box will have a 6.5-metre cable, allowing participants to place the unit where they have space on the wall and still be able to reach the car. The cable will plug in where the fuel tank filler would normally be.

WHY ISN'T THE MINI E AVAILABLE FOR PURCHASE?

For now, the all-electric MINI E is still very much in the research phase. So making it available for just a one-year UK Research loan makes the most sense. Frankly, at this stage, we're not really sure about the long-term endurance of the batteries of the MINI E. By taking them back after each UK Research loan ends, we'll be able to gather valuable data from extended real-world conditions and work towards engineering a longer-term alternative energy vehicle solution.

WHY ISN'T THERE AN ELECTRIC MINI CLUBMAN?

When we were engineering the MINI E, we felt strongly that, for now, the design of the MINI Clubman design had two big disadvantages: first, the MINI Clubman is heavier than a MINI hatchback (an additional 75 kg in the case of the Cooper S version). On top of that, the battery takes up a good portion of the rear seat, and we felt that the Clubdoor of the MINI Clubman would be nowhere near as practical without a back seat.

WHAT IF I REALLY, REALLY WANTED TO BE A UK RESEARCH PARTICIPANT IN THE UK, BUT WASN'T SELECTED SINCE I AM NOT RESIDENT IN THE TRIAL AREA?

First of all, we'd like to sincerely thank you for your interest and we're sorry we don't have more MINI's to go around. Other than that, we'd recommend signing up to receive MINI e-mails on MINI.co.uk for any updates we might have on the MINI E UK Research.

And we'd of course recommend taking any MINI for a spin. Current production MINIs may not be all-electric, but you can rest assured you'll be enjoying some of the best fuel economy and lowest C02 emitting cars available on the market today, and having a ton of fun whenever you drive.

WHY IS THE MINI E ONLY AVAILABLE IN LEFT HAND DRIVE?

The MINI E is only available in Left Hand Drive as it is a one off built car that will be tested worldwide.

MINI E FIELD TRIAL FAQ

DAY TO DAY USE

HOW LONG DOES IT TAKE THE MINI E TO CHARGE?

Using the high power wall box that we'll install in the garage of all UK Research participants, it will only take about 4.5 hours to fully charge the MINI E.

ASSUMING MINI E DRIVERS CHARGE THEIR VEHICLE EVERY DAY, WHAT WILL IT COST THEM VERSUS PETROL?

Here's an example:

Let's say MINI E drivers travel about 40 miles every day in their MINI E, 20 miles to and from work during the week, and 40 miles running errands both Saturday and Sunday. That's roughly 1200 miles a month.

Let's also say that driving conditions and the driving style of MINI E drivers means that a fully-charged MINI E battery lasts for approximately 100 miles. Ideally, if MINI E drivers charge every night (which is recommended), they're charging only for what they have used on their travels that day (and using renewable, cheaper off-peak electricity supplied by Southern Electric). 40 miles of MINI E driving uses about 8 kWhr of power, so at £0.06/kWhr of off-peak electricity (a good round number; what you pay per kilowatt hour varies depending on where the driver lives, just like petrol), it will cost about 50p to charge the MINI E every day, or roughly £14 per month.

Now, if you drive a car that gives you, say, 35 mpg, you're using roughly 155 litres of petrol per month to go the same distance. At £1.10 a litre, that's £170 a month.

The bottom line: it's about 90% cheaper to use the MINI E.

WHAT ARE THE BIGGEST LIMITATIONS OF THE MINI E?

The most important thing MINI E drivers need to keep in mind is the vehicle's fairly limited range. While it achieved 156 miles on a full battery charge during optimal laboratory testing*, drivers will likely get between 100-120 miles based on normal driving style and conditions. That means the entire round-trip shouldn't be more than 100 miles from your home, because there won't be any spots away from your home to re-charge the vehicle.

Other than that, people should be aware that the MINI E is essentially a two-seater with limited cargo space in the back.

* 156 miles under ideal conditions. Vehicles were tested according to California Test Procedures for 2005 and subsequent Zero-Emission Vehicles, amended December 19, 2003

CAN THE MINI E BE CHARGED FROM AN ORDINARY WALL SOCKET?

The best way to charge the vehicle is through the high power wall box installed in the garage. An adapter for use in an ordinary 13A socket will also be provided for occasional use only.

Keep in mind, it does take a long time to charge a MINI E using the 13A adapter (10+ hours) and it also requires a few setting adjustments to the vehicle. This is why it is better to use the wall box installed in the garage to charge the MINI E.

CAN THE MINI E DRIVER USE PUBLIC CHARGING STATIONS?

To charge the MINI E in the shortest amount of time, they'll need to use the wall box installed in their garage with the tethered cable, which has a special plug to fit the MINI E. At present, most public charging stations are not equipped with a compatible connector.

MINI E FIELD TRIAL FAQ

DAY TO DAY USE

HOW DOES THE WALL BOX CHARGING STATION WORK?

To charge the MINI E, the driver plugs it into the 240V/ 32 amp wall box engineered specifically for this purpose. The MINI E has a maximum charging rate of 48 ampere. The expected average charging time is 4.5 hours, or a bit more if the battery has been run down to almost 0%.

IF THE CAR REQUIRES SERVICE, WILL MINI E DRIVERS GET ANOTHER MINI E?

Unfortunately they won't be able to get another MINI E due to the limited number of MINI E cars available. In that event servicing being required, they'll provided with alternative transportation options.

ARE THERE WAYS TO EXTEND THE BATTERY CHARGE AND RANGE OF THE MINI E? ARE THERE CERTAIN DRIVING HABITS OR CONDITIONS THAT WILL MAKE THE BATTERY RUN DOWN MORE QUICKLY?

The battery charge is what it is, it cannot be changed. There are no conditions known to us at this stage which make the battery run down more quickly. With a MINI E in perfect condition, the battery will not run down even if left in the garage for a long period of time. However the range of the MINI E can be influenced by the driver's driving habits.

Here are a few tips: As the car decelerates, it recovers more energy, thus recharging the battery. In low-speed conditions, the efficiency of the electric motor is higher than in high-speed conditions, so if the driver accelerates quickly, it could affect the range of the MINI E.

HOW MUCH WEIGHT CAN THE MINI E DRIVERS PUT IN THE MINI E?

The total additional weight which can be added to the empty MINI E is 195 kg. This includes the weight of the driver and the passenger.

ARE THERE ANY RESTRICTIONS ON WHAT CAN BE CARRIED IN THE BACK OF THE MINI E?

MINI E drivers can carry anything in the back of the MINI E - as long as they make sure not to put anything on top of the battery box, or block "the domes" behind each front seat that help maintain air flow and cool the batteries. What's more, they have to be careful that any unsecured objects in the back won't be sent flying around the cabin in the event of a sudden stop.

WHAT DOES IT FEEL LIKE TO DRIVE THE MINI E?

Thanks to an electric motor that reaches peak torque almost immediately, acceleration in the MINI E is incredibly quick, quiet and smooth. Another unique feature is the vehicle's Brake Energy Regeneration system which transfers the kinetic energy from the momentum of the MINI back into the battery supply whenever the MINI E drivers take their foot off the accelerator. The electric motor will then essentially act like a generator, converting the braking energy into electricity and storing it in the battery. The result is that the MINI E driver can effectively "brake" the car in about 75% of driving conditions without actually touching the brake pedal.

Other than that, the MINI E handles very similarly to its conventionally powered cousins, with incredibly tight and nimble handling and smile-inducing exhilaration every sharp corner.

DOES THE PERFORMANCE OF THE MINI E CHANGE DEPENDING ON THE BATTERY CHARGE LEVEL?

Yes. In order to protect the battery, when the charge level goes below 10%, the performance of the MINI E becomes slightly weaker.

MINI E FIELD TRIAL FAQ

DAY TO DAY USE

WHY IS THE MINI E SO QUIET?

Without a conventional combustion engine under its bonnet and with no pistons firing and exhaust to dispel, the MINI E is very quiet. It can be a little strange at first, since much of the auditory feedback we receive while accelerating is one way we can tell we're going faster. But everyone gets used to it pretty quickly.

MINI E drivers should, though, pay extra attention to their surroundings, since young children or pedestrians won't have those same noise cues either to let them know there's a car coming.

HOW DO ELECTRIC VEHICLE'S WORK?

Basically, the heart of an EV has three main components: the batteries, the electric motor controller and the electric motor. The controller takes power from the batteries and delivers it to the motor. The batteries of an EV can vary in type, number, power and placement. The different battery types available now are nickel-cadmium, nickel-metal hydride, lithium-ion, and lead-acid. To recharge the batteries, there is a charger component on the car, which takes the electricity from a power source (ultimately the power plant) and converts it from alternating current (AC) to direct current (DC) that is stored inside the battery.

From there, the power is delivered to the electric motor via the motor controller, based on the driver's inputs.

MINI E FIELD TRIAL FAQ

ENVIRONMENT

IS THE MINI E AS SAFE AS TRADITIONAL PETROL-POWERED VEHICLES?

This car has undergone the usual BMW engineering procedures and the battery has safety features that prevent overheating scenarios. Nevertheless, only MINI E Specialists should work on these vehicles. No aftermarket parts should be installed in these vehicles that would change its energy consumption characteristics.

IS THERE ANY CHANCE OF THE PASSENGERS RECEIVING AN ELECTRIC SHOCK?

No. The lithium-ion batteries have been securely sealed and all high power circuits are protected from casual contact, so make sure you keep the batteries sealed and don't try to work on the car yourself. High power circuits are marked, colour-coded and posted with warnings to advise of their presence. These vehicles pose no additional risks over a conventional vehicle.

And though we wouldn't recommend driving the MINI E in your bathtub, they're fine in the rain.

CAN PEOPLE WITH PACEMAKERS RIDE IN A MINI E?

Yes. The electric components of the vehicle will not affect anyone's pacemaker

(though the exhilarating handling of all MINIs has been known to make more than a few hearts skip a beat). But to be safe, MINI E drivers must not try to work on the car themselves and keep the battery compartment sealed.

WHAT'S THE DIFFERENCE BETWEEN A 100% ELECTRIC VEHICLE AND HYBRIDS?

100% Electric Vehicles (EVs) are cars that run on electricity stored in batteries and they're often confused with hybrid electric vehicles which combine an internal combustion engine with a battery. EVs are truly zero emission cars because they have no tailpipe exhaust and no evaporative emissions from fuel systems. Manufacturers have developed a broad spectrum of EVs " from neighbourhood electric cars which can be used for short trips around town to full function electric cars like the MINI E, which can be used for longer trips and have the body of conventional cars.

Hybrids charge the electric battery using energy from the traditional engine and then only rely on the electric motor in selective situations, such as low speeds. Plug-in Hybrids provide expanded use of the electric motor, but still rely on the petrol engine to extend the vehicle's range.

WHAT ARE THE ENVIRONMENTAL ADVANTAGES OF ELECTRIC VEHICLES?

The two biggest advantages of EVs are that they do not depend on imported oil for fuel and they do not emit any tailpipe exhaust, thus reducing greenhouse petrol emissions. On average, someone using an electric vehicle with a 30-mile daily commute could reduce petrol consumption by an estimated 3,400 litres per year. And even taking into consideration emissions generated at the power plant supplying electricity, EVs are up to 90% cleaner than the average petrol-driven vehicle, with the possibility of 100% emission-free driving when charged with electricity which has been generated in a fully regenerative manner, e.g. electricity from wind or water.