

Appraiser Blog

Electric Cars in Cold Weather Essential Tips for EV Owners



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Electric Cars in Cold Weather: Navigating and Overcoming the Challenges

Imagine a typical winter morning in Atlanta but with a twist. You, an electric vehicle (EV) owner, step out to find your car struggling against the cold. This isn't just a hypothetical scenario; it's a reality faced by many EV owners during winter months. The cold weather brings unique challenges to electric vehicles, often overlooked in the conversation about the future of transportation.

The Cold Weather Conundrum

Electric vehicles are lauded for their efficiency and eco-friendliness, but they are not immune to the whims of Mother Nature. In cold weather, EVs face reduced battery performance and range. This issue came to the forefront during a severe cold snap in Chicago, where EVs were rendered almost lifeless, unable to charge, and left abandoned in parking lots.



Electric cars abandoned in cold weather in a parking lot in Chicago

Why Are EVs Left Stranded?

The reason behind these stranded EVs is multifaceted. The primary culprit is the lithium-ion batteries used in most electric cars. These batteries are less efficient in cold weather, leading to a significant drop in range – sometimes up to 40%.

This sudden decrease can catch drivers off guard, especially if they're not used to planning for reduced range. When an EV runs out of charge unexpectedly, drivers are often forced to leave them at charging stations, sometimes for extended periods, until they can be recharged or towed.

Preventative Measures for EV Owners

To avoid such scenarios, EV owners can take several steps:

1. **Preconditioning:** This involves heating the battery to the optimal temperature before charging. It can be done while the car is still plugged in, ensuring the energy used for heating comes from the grid and not the battery.
2. **Regular Charging:** Keeping the battery charged above a certain level can prevent the drastic range reduction seen in extreme cold.
3. **Insulated Parking:** Parking in a garage or another insulated area can help maintain battery temperature.
4. **Driving Habits:** Adopting energy-efficient driving habits in cold weather, like reducing speed and minimizing the use of heating, can conserve battery life.

Learning from Norway's Example

Norway presents an excellent case study. Despite its cold climate, Norway has one of the highest rates of EV ownership in the world.

This success is attributed to its robust infrastructure, including widespread public charging stations, and the collective experience of its EV owners in managing cold weather challenges.

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The Future of EVs in Cold Climates

The hurdles that cold weather presents to electric vehicles are certainly challenging, but they are not unbeatable. As we witness continual improvements in battery technology, coupled with a growing public understanding and enhanced charging infrastructure, electric vehicles are poised to match the winter reliability of their gasoline counterparts.

The crux of navigating this landscape successfully lies in recognizing these limitations and mastering the art of operating within these bounds.

Conclusion

The journey of EV ownership in cold weather is akin to learning a new language. It requires adaptation, understanding, and a bit of patience. But with the right knowledge and tools, it can become second nature.

As we embrace a future dominated by electric vehicles, being prepared for all weather conditions is not just advisable; it's essential.

Are you ready to adapt and thrive with your EV, even when the mercury drops?