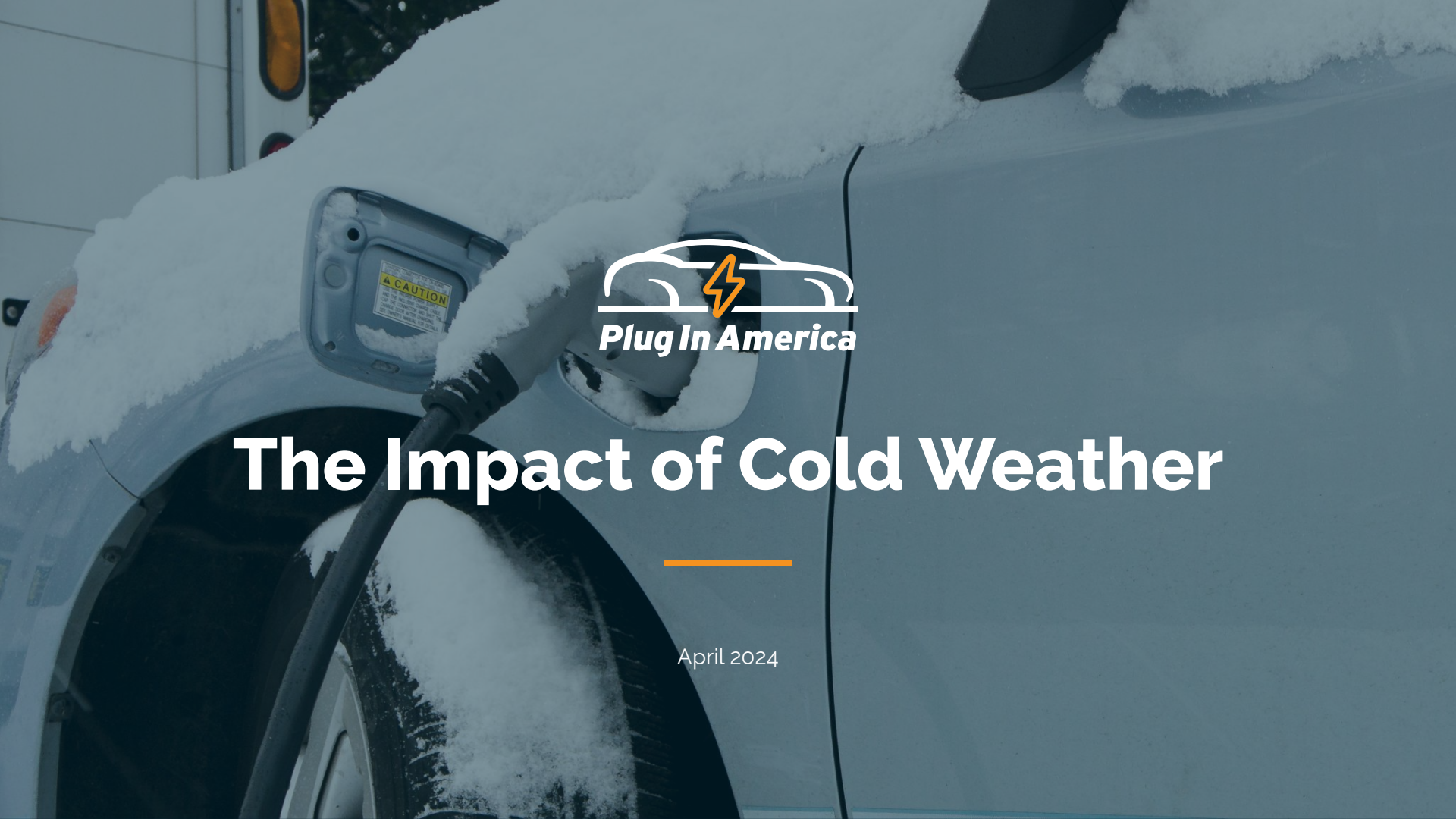


Plug In America

The Impact of Cold Weather

April 2024

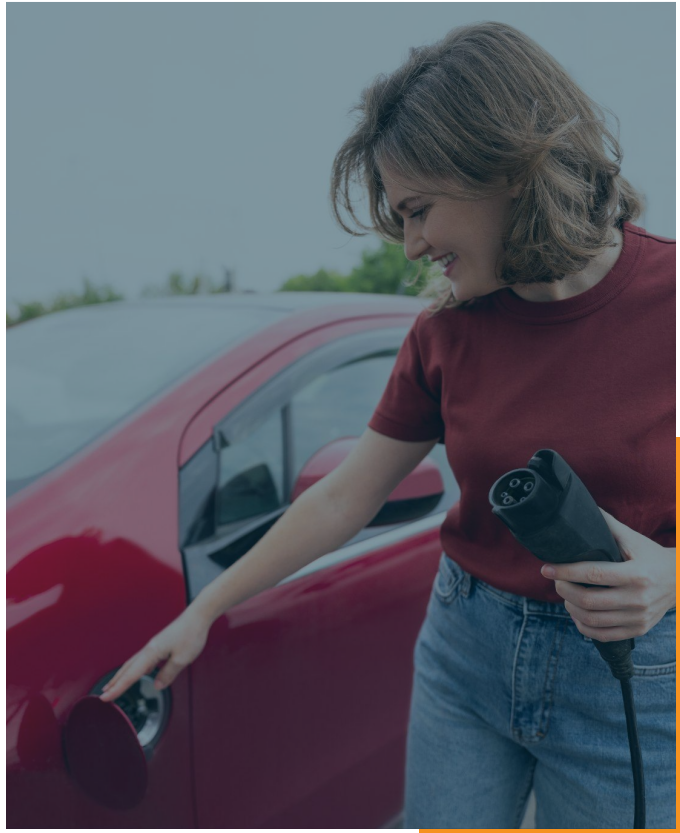
Methodology

This survey was conducted online over a four-week period from Feb. 27 to Mar. 24 of 2024. It was composed of 338 respondents.

Almost all of the respondents have access to home chargers and, therefore, could have an easier experience when it comes to cold weather driving.

Respondents were asked the following questions:

- When you first had an EV, how worried were you about the impact of cold weather?
- How worried are you about the impact of cold weather on your EV now?
- Do you take extra steps to account for the impact of cold weather on your EV?
- How do your overall charging costs change during the winter?
- How confident do you feel in your EV when taking longer trips in cold weather?



Methodology

Throughout the analysis, references are made to “cold-weather states.” This represents 199 of the 338 respondents, and refers to respondents in the following states:

- Alaska
- Colorado
- Connecticut
- Delaware
- Illinois
- Indiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Montana
- New Hampshire
- New Jersey
- New York
- Ohio
- Pennsylvania
- Rhode Island
- Vermont
- Washington
- Wisconsin

Main findings

Driving an EV in the cold weather isn't a massive problem, but it requires some extra work.

Our respondents - mostly comprised of drivers with access to home charging - overwhelmingly indicated that they are not that worried about the impact of cold weather on their EVs, but acknowledged that it does require extra steps to account for and that their charging costs increased during the winter. Respondents in cold-weather states were even more likely to pay more for charging or take extra steps to account for winter temperatures.

No matter what their prior conceptions of cold weather impacts were, the majority of respondents found themselves less worried after experiencing it for themselves.

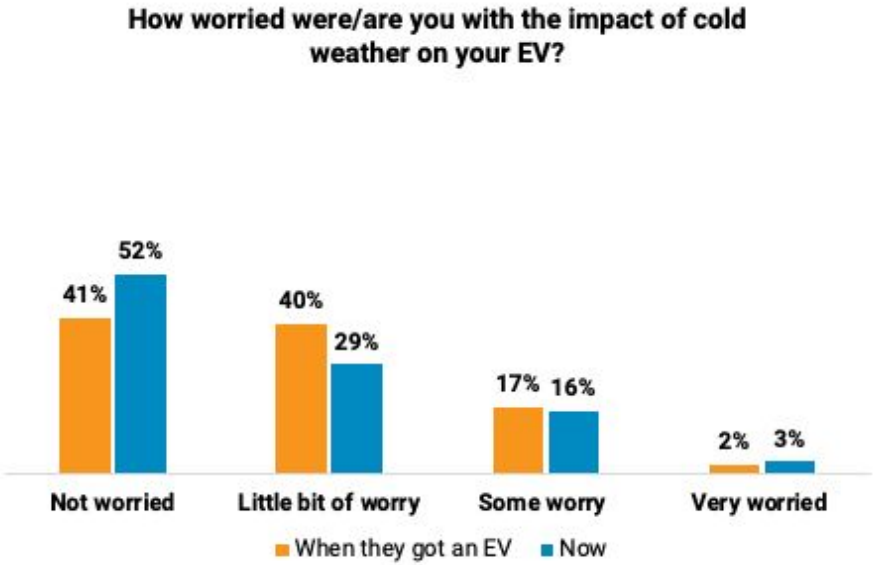
Only 19% of respondents were worried about cold weather before driving an EV. Over 60% of those same respondents indicated that they were either not worried at all or only a little bit worried about cold weather now.

EV drivers are not that worried about cold weather impacts.

41% of EV driver respondents said they were not worried about the impact of cold weather when they first got an EV, with 52% saying they are not worried about it now.

Only 2% of EV driver respondents said they were very worried about cold-weather impacts when buying their EV, a number that only increased to 3% after experience driving an EV.

Respondents in cold-weather states showed more worry when they got an EV, but similar levels of worry as the other respondents now. 50% of cold-weather respondents said they are not worried about the impact of cold weather now.



The breakdown

When they first got an EV: How worried were you with the impact of the cold weather on your EV?

41%
of respondents said they were not worried about the impact of cold weather when they first got an EV

40%
of respondents said they were a little bit worried about the impact of cold weather when they first got an EV

17%
of respondents said they were had some worry about the impact of cold weather when they first got an EV

2%
of respondents said they were were very worried about the impact of cold weather when they first got an EV

performance concern **before**

41%
of those respondents said they are not worried about the impact of cold weather when they first got an EV

40%
of those respondents said they are a little bit worried about the impact of cold weather when they first got an EV

17%
of those respondents said they have some worry about the impact of cold weather when they first got an EV

2%
of those respondents said they are very worried about the impact of cold weather when they first got an EV

67%
of those respondents said they are not worried about the impact of cold weather now

19%
of those respondents said they are a little bit worried about the impact of cold weather now

11%
of those respondents said they have some worry about the impact of cold weather now

3%
of those respondents said they are very worried about the impact of cold weather now

performance concern **now**

performance concern **before**

41%
of those respondents said they are not worried about the impact of cold weather when they first got an EV

40%
of those respondents said they are a little bit worried about the impact of cold weather when they first got an EV

17%
of those respondents said they have some worry about the impact of cold weather when they first got an EV

2%
of those respondents said they are very worried about the impact of cold weather when they first got an EV

48%
of those respondents said they are not worried about the impact of cold weather now

35%
of those respondents said they are a little bit worried about the impact of cold weather now

15%
of those respondents said they have some worry about the impact of cold weather now

2%
of those respondents said they are very worried about the impact of cold weather now

performance concern **now**

performance concern **before**

41%
of those respondents said they are not worried about the impact of cold weather when they first got an EV

40%
of those respondents said they are a little bit worried about the impact of cold weather when they first got an EV

17%
of those respondents said they have some worry about the impact of cold weather when they first got an EV

2%
of those respondents said they are very worried about the impact of cold weather when they first got an EV

28%
of those respondents said they are not worried about the impact of cold weather now

37%
of those respondents said they are a little bit worried about the impact of cold weather now

32%
of those respondents said they have some worry about the impact of cold weather now

4%
of those respondents said they are very worried about the impact of cold weather now

performance concern **now**

performance concern **before**

41%
of those respondents said they are not worried about the impact of cold weather when they first got an EV

40%
of those respondents said they are a little bit worried about the impact of cold weather when they first got an EV

17%
of those respondents said they have some worry about the impact of cold weather when they first got an EV

2%
of those respondents said they are very worried about the impact of cold weather when they first got an EV

43%
of those respondents said they are not worried about the impact of cold weather now

29%
of those respondents said they are a little bit worried about the impact of cold weather now

14%
of those respondents said they have some worry about the impact of cold weather now

14%
of those respondents said they are very worried about the impact of cold weather now

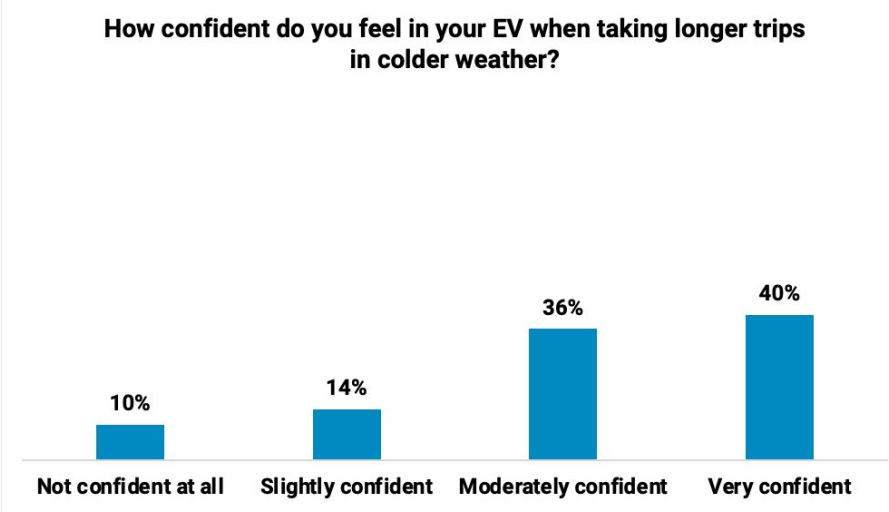
performance concern **now**

Consumers feel confident taking longer EV trips in cold weather.

76% of respondents indicated that they are least moderately confident taking longer EV trips in cold weather, with 40% saying that they feel very confident.

Only 10% of respondents indicated that they are not confident at all, with an additional 14% saying that they are only slightly confident.

Cold-weather state respondents showed very similar confidence levels. 77% of those respondents said they are at least moderately confident taking longer trips in cold weather.

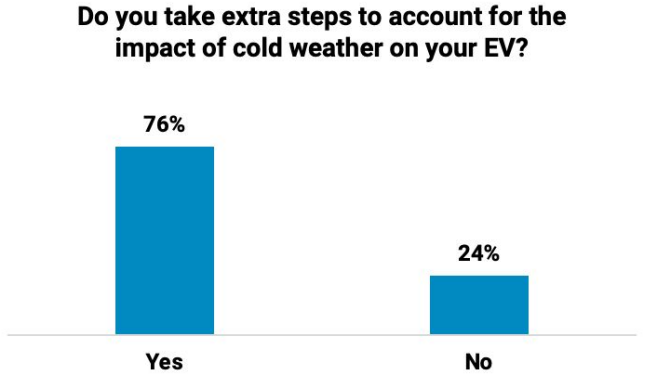


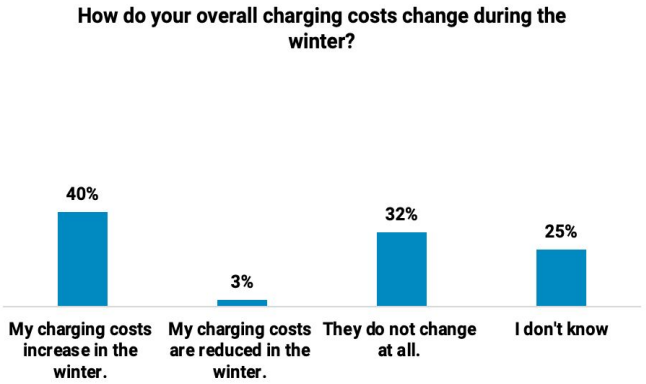
However, charging costs do increase in cold weather, and consumers have to take extra steps to account for the impact of cold weather.

About 3 out of every 4 respondents indicated that they do take extra steps to account for the impact of cold weather on their EV, such as charging more frequently or planning out stops on trips.

40% of respondents answered that their charging costs increased during the winter, compared to 32% who said they don't change at all and 3% who said their costs decrease.

Cold-weather state respondents were slightly more likely to take on extra steps or costs: 82% said they take extra steps to account for cold weather, while 48% said their charging costs increase in the winter.





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