Gov. Jerry Brown wants to dramatically increase the number of electric cars on California’s roads in order to slash the state’s largest source of greenhouse gas emissions – transportation.

In an executive order unveiled Friday, Brown set a new goal of getting five million zero emission vehicles on the road by 2030. That’s a fourteen-fold increase from the number currently on the road -- 350,000.

“We’re going to get there, believe me,” Brown said in his State of the State speech on Thursday. “We all got a lot of work.”

To meet the new goal, Brown is calling for a $2.5 billion investment in hydrogen and electric vehicle chargers and vehicle rebates over the next eight years. Most of the money will come from the state’s cap-and-trade program, which generates revenue by making polluters like
power plants and gasoline refiners purchase permits to emit carbon dioxide, a contributor to climate change.

“This is a recognition on the part of the administration that we need to increase our commitment not just to selling the vehicles, but to investing in electric vehicle infrastructure,” said Adrienne Alvord, the western states director of the Union of Concerned Scientists.

There are just 14,000 public charging stations in California today, and researchers have identified the lack of places to plug in is as one of the biggest obstacles to getting more electric vehicles on the road. By increasing the number of electric chargers to 250,000 (and adding 200 hydrogen fueling stations) state officials hope to ease “range anxiety,” the concern that electric vehicle drivers will be stranded without a place to charge. They also hope the chargers will increase the visibility of EVs as a viable alternative to gasoline-powered cars.

“The biggest single barrier to greater penetration of electric is lack of consumer awareness that there are vehicles available that can meet their needs,” said Mary Nichols, head of the California Air Resources Board, on a conference call Friday. “There have to be enough of them out there that people can see so they get a chance to look them over and realize that they’re not being asked to participate in some risky new experiment. They’re being offered an opportunity to buy into some very attractive new cars.”

Since holding its first auction for carbon permits in November 2012, the California Air Resources Board has raised $6.1 billion in cap-and-
trade revenue. Sixty percent of that is automatically dedicated toward high speed rail, affordable housing and public transit. The remaining forty percent of the proceeds is what lawmakers, local officials, non-profits and lobbyists fight over every year.

While the legislature ultimately decides how the remaining forty percent gets allocated, Gov. Brown begins the conversation in January when he releases his cap-and-trade spending proposal, which he did along with his new executive order. In addition to his new zero-emission vehicle initiative, Brown’s plan calls for $285 million in clean buses, trains, trucks and agricultural equipment, which in addition to reducing carbon dioxide emissions are also aimed at cutting smog in Southern California and the San Joaquin Valley. There is also $185 million to help reduce the severity of wildfires by removing trees from forests, either by cutting them down or through prescribed burns. In addition, nearly $120 million is allocated to reduce methane, a potent greenhouse gas, from dairies and livestock.

Gladys Limón, executive director of the California Environmental Justice Alliance, said the governor’s plan didn’t go far enough to clean up the air and improve the lives of low-income Californians living in the most polluted areas. She criticized the $255 million CARB would receive to clean up air in heavily polluted communities. The money is part of AB 617, a bill passed last year as part of the effort to extend the cap-and-trade program through 2030.

“There has been very little community engagement around the already allocated funding from last year,” she wrote in a statement.
“[There are] significant concerns that this money is not being tied directly to community priorities.”

But mainstream environmental groups like the Natural Resources Defense Council were more supportive of the governor's plan.

"Today’s initiative points to his desire for the state to remain at the forefront globally on clean transportation and have a long-term plan to achieve its ambitious 2030 clean energy goals," Simon Mui, who directs NRDC’s on clean vehicles program, said in a statement.

*Correction: An earlier version of this incorrectly reported the number hydrogen fueling stations Gov. Brown hopes to see built by 2030.*