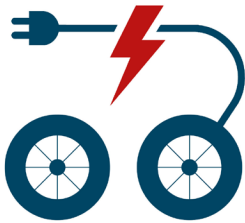


# Incidents with alternative fuel vehicles

Annual report 2021

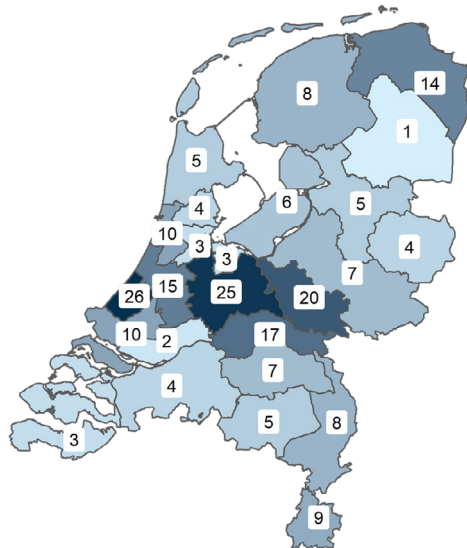


This factsheet provides a picture of the number and type of incidents involving alternative fuel vehicles (AFV). Other characteristics are also considered, such as the type of propulsion, the type of AFV, the resources used and the number of victims.

The figures are related to incidents in the Netherlands where the fire brigade was deployed.



Number of AFV incidents per safety region



NIPV | 2021



Incidents in the Netherlands

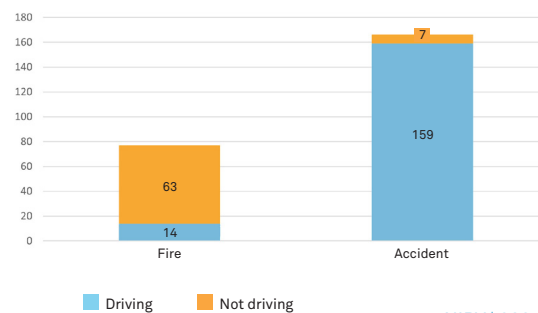
Number of incidents  
**221**  
159 accidents  
62 fire

NIPV | 2021

Number of vehicles  
**243**  
166 accidents  
77 fire

NIPV | 2021

Type of incident

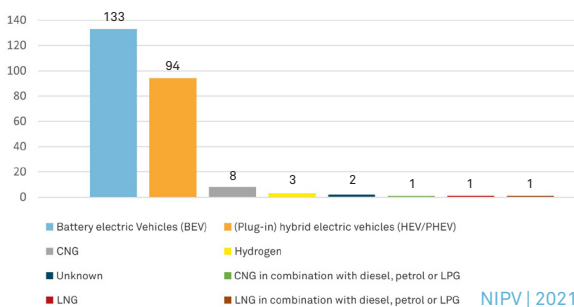


NIPV | 2021



AFV propulsion

Number of vehicles involved in incidents, by type of propulsion

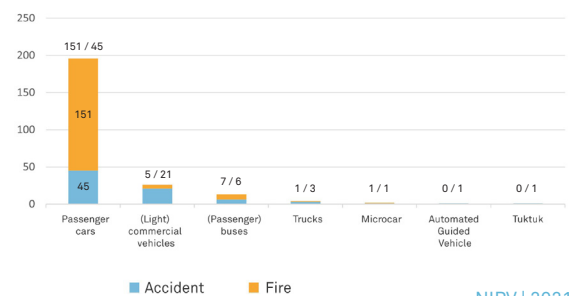


NIPV | 2021



Type of vehicle

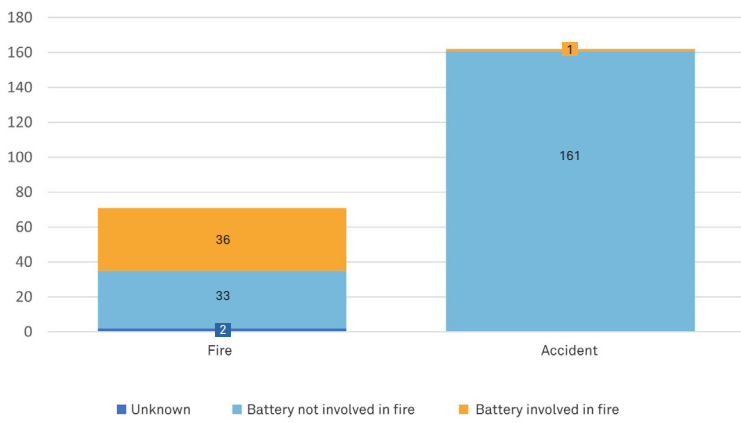
Number of vehicles involved in incidents, by type of vehicle



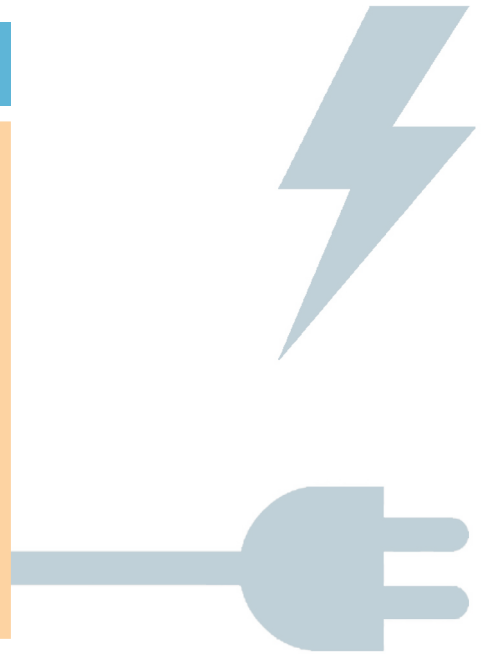
NIPV | 2021



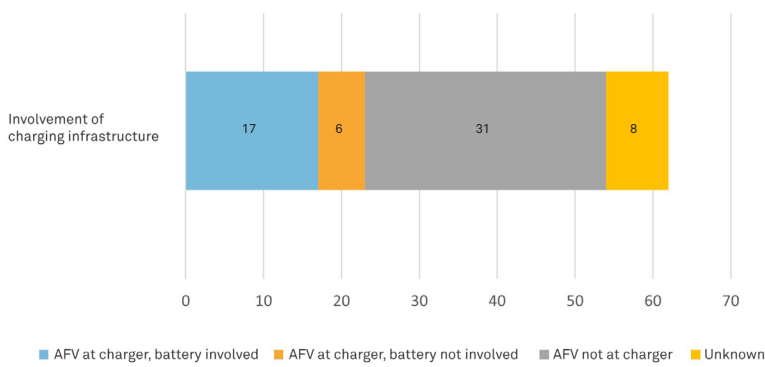
### AFV with battery



NIPV | 2021

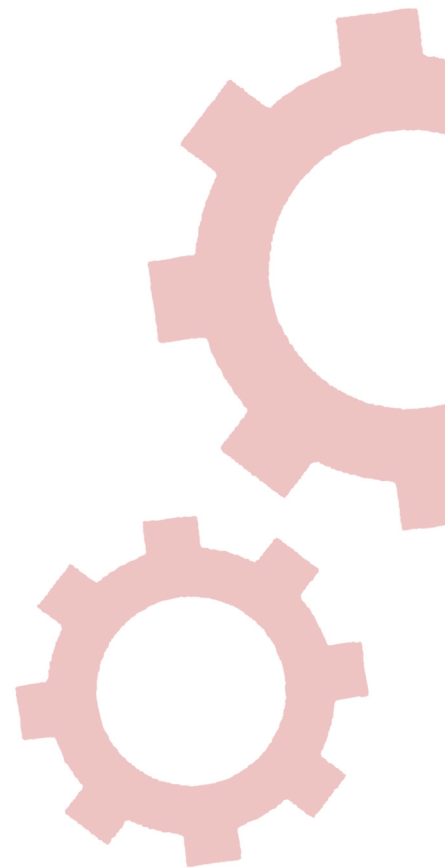


### AFV at charger\*

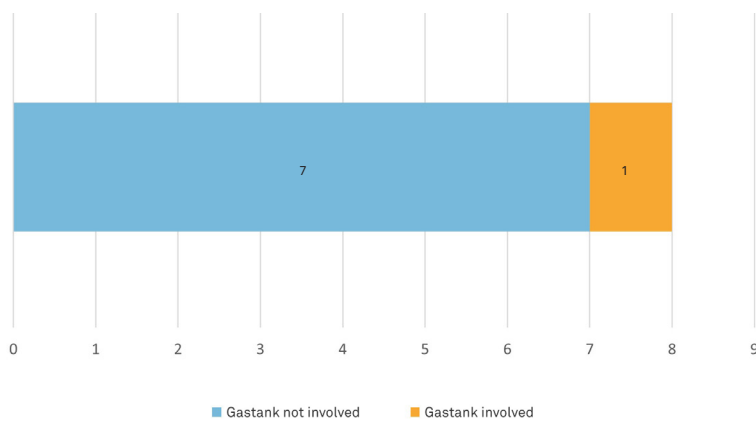


NIPV | 2021

\* For the 62 vehicles that could have been on the charger counts that they had to be parked, involved in the fire and were a BEV, (P)HEV or FCEV.



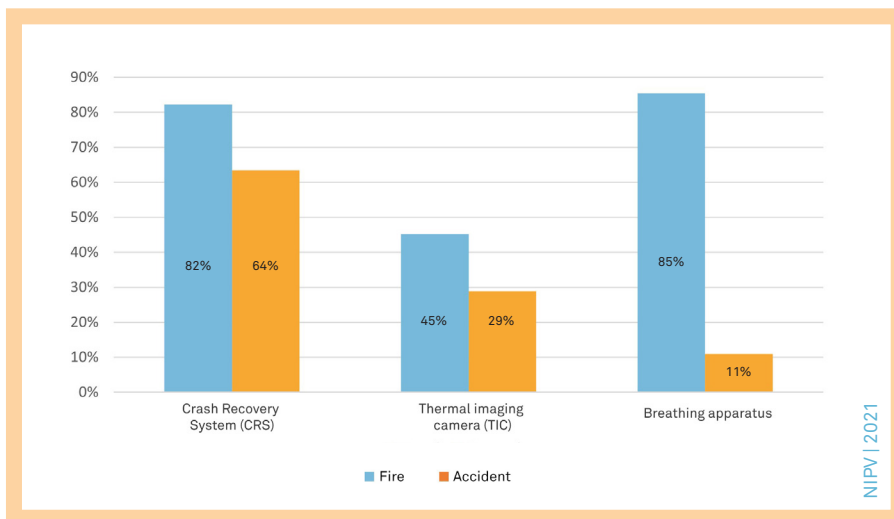
### AFV with gastank



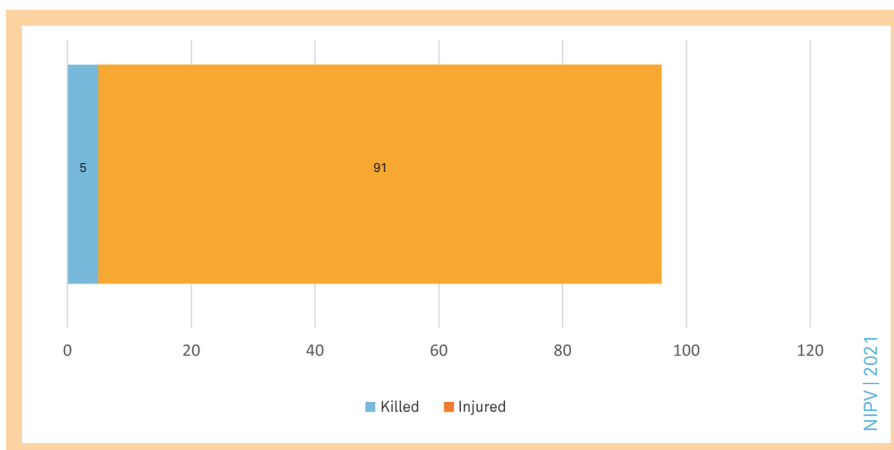
NIPV | 2021



## Used resources



## Casualties at accidents with AFV\*



\* Only accidents resulted in casualties. There were no victims in a fire.

## Lessons from incidents with AFV

- > If there is a **fire** with an electric vehicle, the battery pack of the vehicle is not always involved in the fire. The battery of a an electric vehicle involved in a fire therefore not always has to be submerged into water as a precaution.
- > At **accidents** the chance of being electrocuted is very low. Only in case of very serious damage to the battery pack there is a chance of electrocution if you touch the car with both bare hands. Therefore, always use the personal protection equipment in accordance with the procedures. At none of the accidents in 2021 was the battery pack so severely damaged that there was a risk of electrocution.
- > **None of the incidents** in 2021 resulted in injury to fire brigade personnel.

### More information

For the dashboard Incidents with alternative fuel vehicles see: [kerncijfers.nipv.nl](https://kerncijfers.nipv.nl)

This factsheet is based upon the Annual report 2021 Incidents with alternative fuel vehicles (NIPV, 2022). The publication can be downloaded at [www.nipv.nl](https://www.nipv.nl)

In case of any questions, please send an email to [aav@nipv.nl](mailto:aav@nipv.nl)

Netherlands Institute for Public Safety, April 2022