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NTT

D-04

Relay for EVs to Connect through Radio Waves
-The Power of Electric Vehicles to Support Telecommunications Infrastructure-

Social Issues that we have focused on

Recent years have seen many natural disasters occurring in Japan, and ensuring the power supply of wireless base stations and maintaining communications infrastructures in times of disaster is an extremely important initiative of social responsibility to support the infrastructure of people's lives. With this in mind, we have focused on the issue of whether EVs (electric vehicles), which are expected to become more widely used in the future, could be utilized in emergencies.

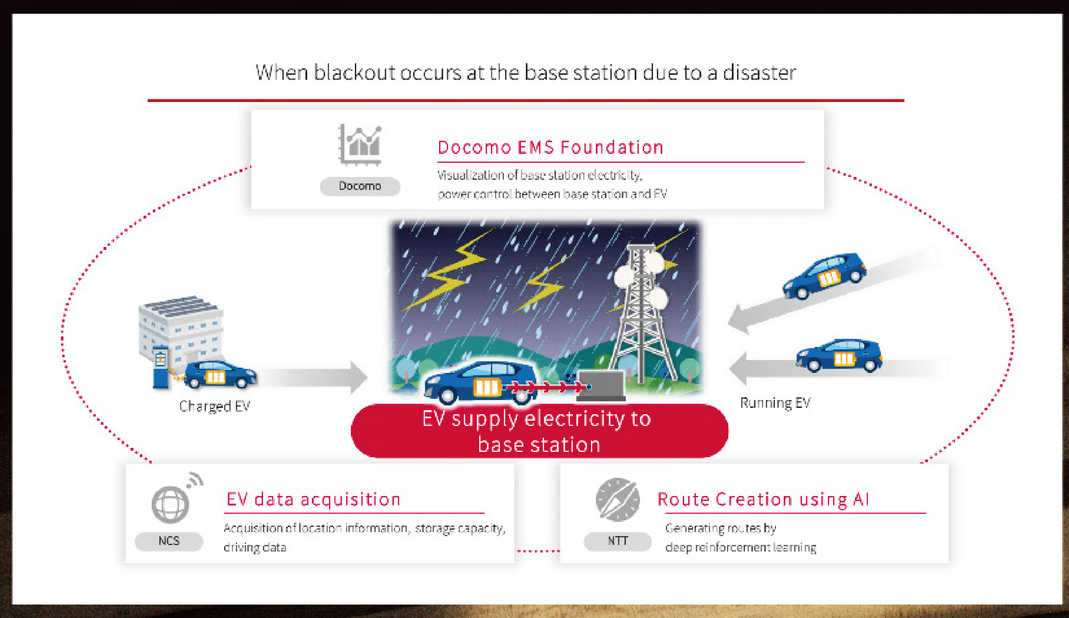
Initiatives to resolve issues

Overview

The three companies NTT DOCOMO, INC. ("DOCOMO"), Nippon Telegraph and Telephone Corporation ("NTT"), and Nippon Car Solutions Co., Ltd. ("NCS") are working together on research and development of a base station power restoration system using electric vehicles to strengthen disaster countermeasures in the event of power outages.

Technology to Support Initiatives

Optimal EVs will be dispatched to base stations where they will supply power using the Energy Management System (EMS) infrastructure developed by DOCOMO, which is responsible for monitoring and controlling base station power, the AI dispatch plan developed using patrol route generation technology based on deep reinforcement learning being researched and developed by NTT, and EV data provided by NCS.



Co-creation Partners | NIPPON TELEGRAPH AND TELEPHONE CORPORATION / NIPPON CAR SOLUTIONS CO., LTD.

SDGs 7 AFFORDABLE AND CLEAN ENERGY 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

EVs that are normally used as passenger cars will be utilized as a power source for base stations that are likely to experience power outages in the event of a disaster, thus securing the communication infrastructure, thereby supporting the infrastructure of people's lives and contributing to society.

We also aim to apply the system outside the company, such as supplying electricity to evacuation centers in cooperation with local governments.