

# IMANAKA LAB.

## Toward Carbon-free Charging of Electric Vehicles



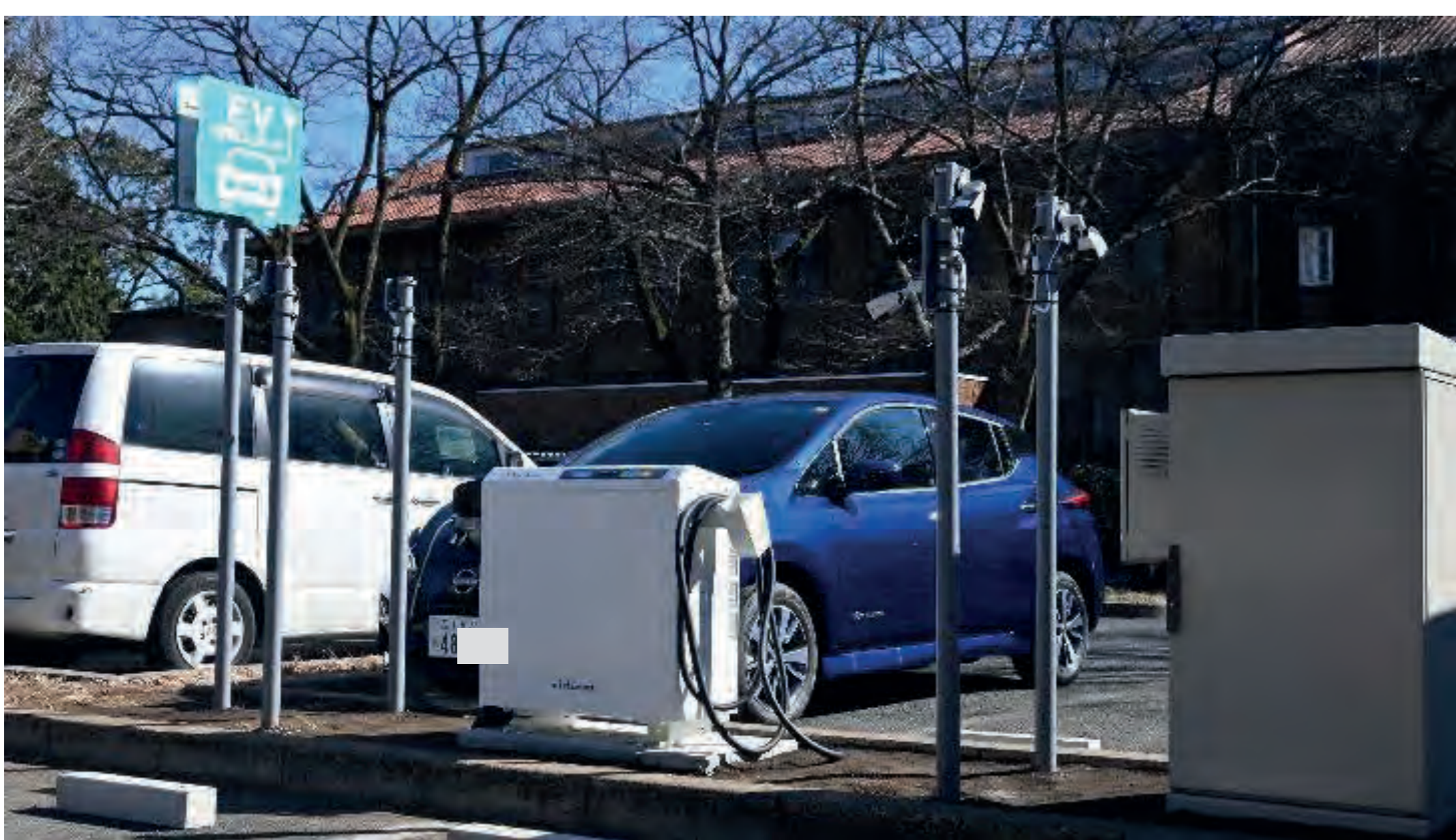
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Demand-side Power System Engineering

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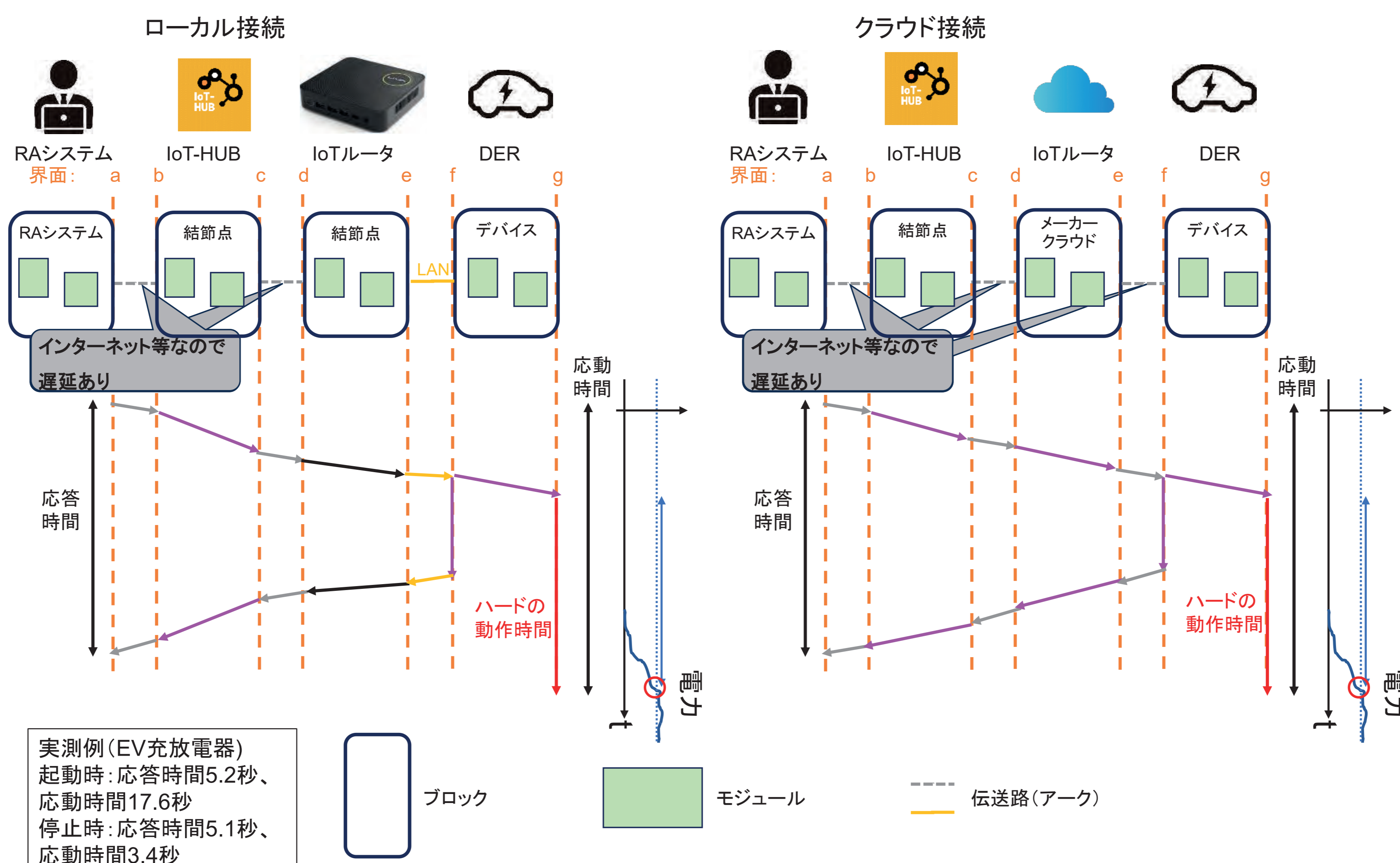
### Control EV charging according to power system condition with IoT

Electric vehicles (EV) need to be charged with renewable-rich electricity for decarbonization. Also, EV charging power should be reduced on power shortages. Our lab. researches and develops various EV charging services according to power system conditions using IoT-HUB. We constructed seamless system to deploy trial charging services to smart-phone app.. We also have made the reference model to describe both ICT and electrical delays of distributed energy resources (DERs).



EV charging testbed

App. for the seamless system



Model 0 of the reference model of DERs

