

# IMANAKA LAB.



## Toward decarbonized electric vehicle charging

Department of Human and Social Systems  
Energy System Integlation, Social Cooperation Program

Demand-Side Power System Engineering

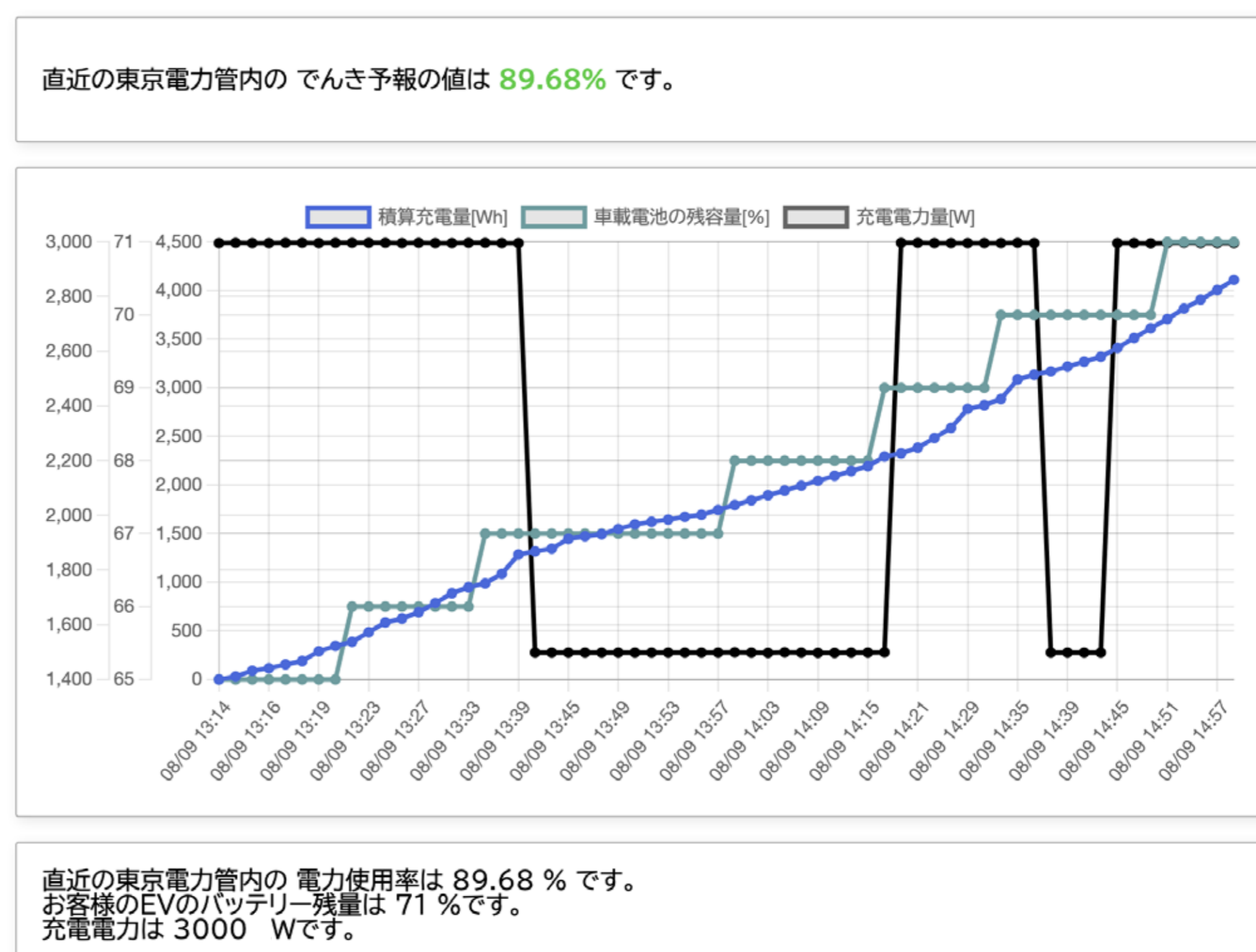
<http://www.ogimotolab.iis.u-tokyo.ac.jp/imanaka/index.html>

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

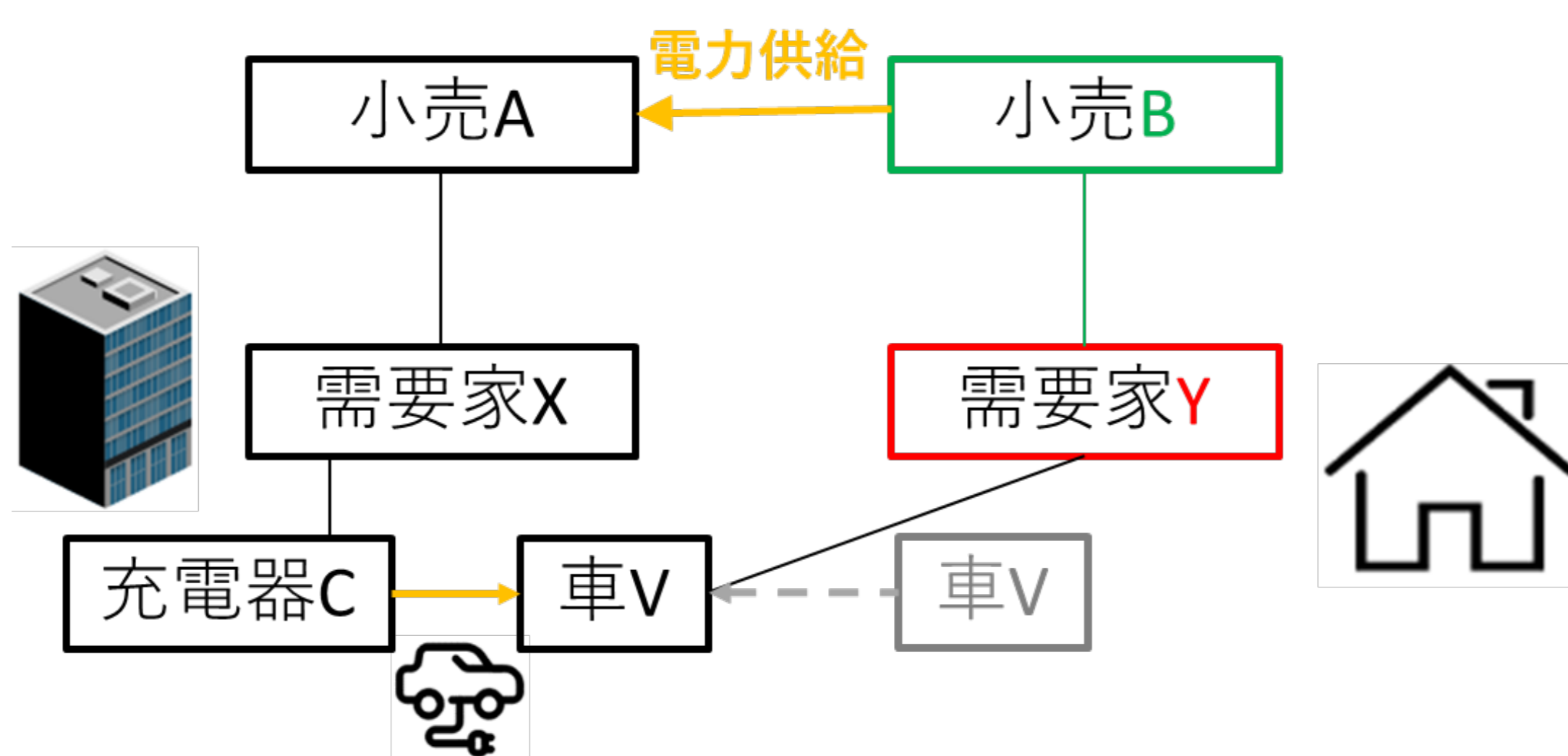
Electric vehicles (EV) need to be charged with renewable-energy-rich electricity for decarbonization. Also, EV charging power should be reduced or even discharging may be needed on power system electricity shortages. Our lab. researches and develops various new EV charging services according to power system conditions using IoT-HUB technology. Also, We have constructed the measurement system both for ICT delay and electrical delay for distributed energy resources and studies technologies which can compensate rapid renewable-power fluctuations.



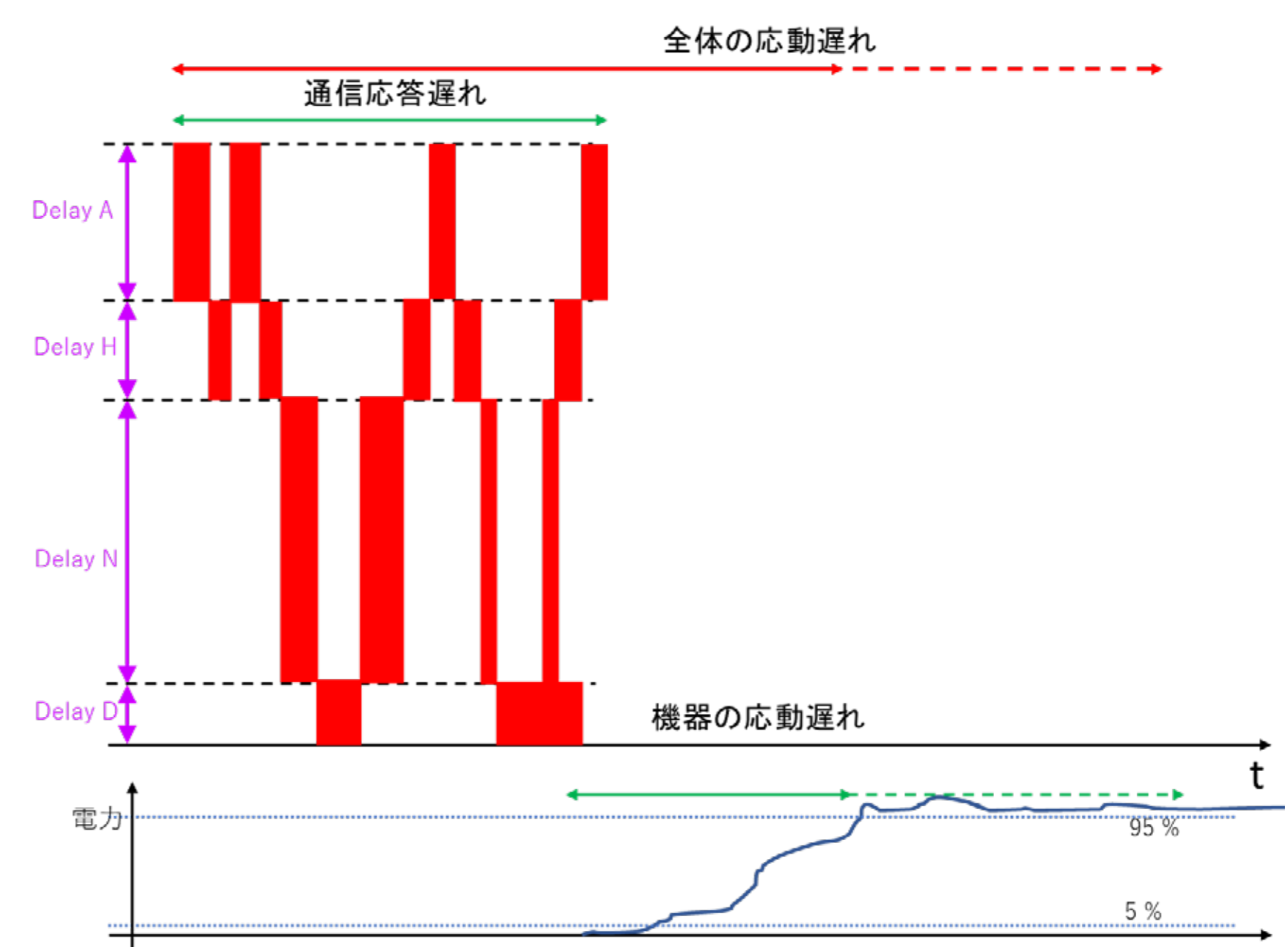
EV charging testbed



App. for EV charging according to power usage



Combined menu of EV charging fees with electricity bills



Measurement of ICT and electrical delay