Data info

1. GES\_parameter.mat

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| Matrix Name | Matrix Size | Meaning |
| Pchmax | 100x1 | Max charge power |
| Pdismax | 100x1 | Max discharge power |
| SOCmaxup | 100x24 | Real-time upper SOC boundary |
| SOCmindown | 100x24 | Real-time lower SOC boundary |
| stateprobability | 100x24 | On-state probability |
| beita | 100x24 | Energy losses from user environment |
| ebuxiu | 100x1 | Self-discharge rate |
| S | 100x1 | Capacity |
| SOC\_0 | 100x1 | Initial SOC |
| T | 1x1 | Whole dispatch time period |
| N\_GES | 1x1 | Number of GES units |
| Cyita | 100x1 | Thermal capacity of TCL |
| yitaR | 100x1 | Thermal resistance of TCL |
| Tout | 1x24 | Forecast ambient temperature |
| Tinmax | 100x24 | Real-time maximum setpoint temperature |
| Tinmin | 100x24 | Real-time minimum setpoint temperature |
| Tinmaxmax | 100x1 | Maximum indoor temperature |
| Tinminmin | 100x1 | Minimum indoor temperature |
| Tset\_0 | 100x1 | Initial setpoint temperature |
| Tout\_0 | 100x1 | Initial ambient temperature |
| Pmax | 100x1 | Maximum power of TCL |
| Pmin | 100x1 | Minimum power of TCL |
| yitach | 100x1 | Charge efficiency of TCL |
| yitadis | 100x1 | Discharge efficiency of TCL |

Visualization of some parameters



Fig. 1. Boxplot of on-off probability



Fig. 2. Boxplot of SOC Limits

2. ActualImbalance\_202301~202310.xlsx

Historical imbalance power data of Eila is used to generate distribution of imbalance power.