

# Home Energy Real-Time Digital Twin



It will be too late if we wait to have millions of intelligent grid edge devices deployed to contend with their impact on energy market, asset and feeder management.

Particularly, the mass amount of DERs installed in a distribution network means that traditional feeder load forecasting models now yield less accurate results as they do not account for the significant generation and supply occurring behind the meter. The increasing adoption of EVs and bidirectional chargers will further exacerbate this problem.



dcbel **Home Energy Real-Time Digital Twin** product allows for real-time behind the meter visibility and the ability to simulate the grid impact of thousands of DER interactions against real world conditions without the need for costly and time-consuming hardware deployments. This innovative approach provides critical net load data to ADMS and provides near-real world insights into the future impact of DER integration, flexibility programs, and energy asset control.

## Real-time and multi-year granular DER net load forecasts

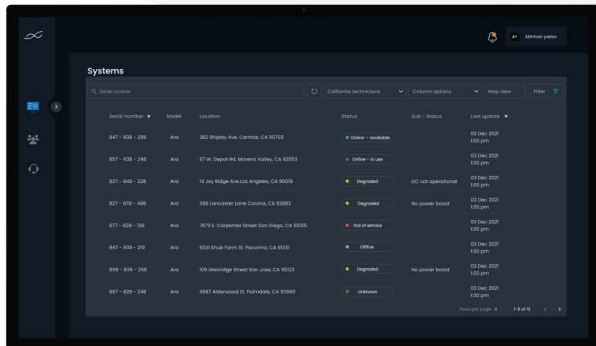
- **Analyse** the impact of the bottom up adoption of DERs over a defined customer base
- **Evaluate** the impact of different real-time flexibility price profiles and dynamic prices on net load forecasts (PV forecasts, home load forecasts, ESS and EV usage forecasts)
- **Integrate** seamlessly with DERMS/ADMS/Load forecasting tools via IEEE 2030.5/OpenADR/CIM or the powerful Chorus REST native API



# DER Butterfly effect

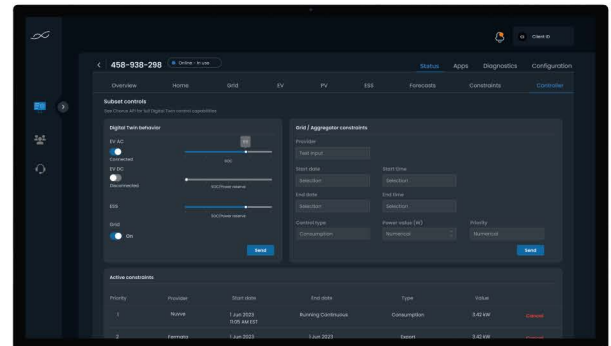
## A single ESS impacts LMPs

A global platform that provides near real-time forecasts for hyper-accurate feeder forecasts, active Grid capacity management and development plans, and to test residential DER response elasticity.



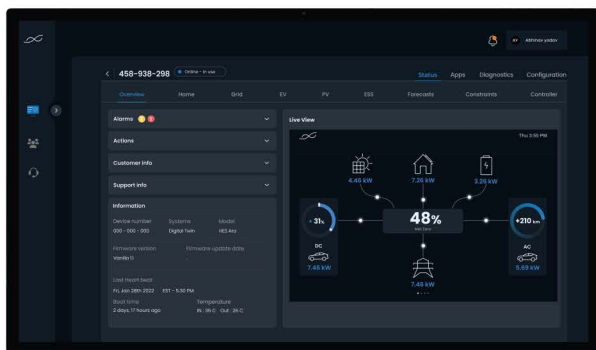
### Real customer base, simulated DERs

Batch create and configure your Digital Twins and energy baseline by uploading meter data or using personas to create synthetic loads.



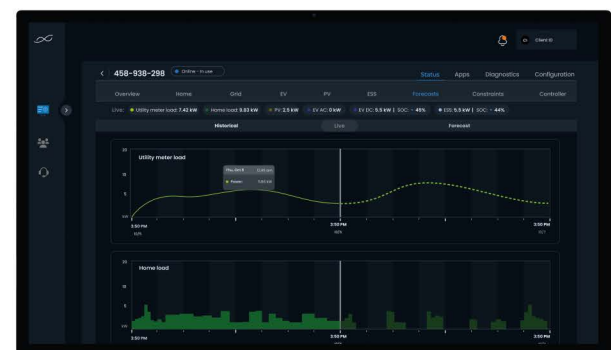
### From home to grid constraints

Use the Chorus API/Control Center interface to simulate different states such as EV arrival and departure, grid outages and even a whole new energy program or tariff.



### Real-time weather, pricing and family life

Run baseline profile or real-time meter data and simulated input through energy forecasting algorithms.



### Load, EV, Solar, ESS, Feeder forecasts... Yup

The rolling Load Forecast API connects directly to your DERMS and existing BI systems.