

# FLATLINE

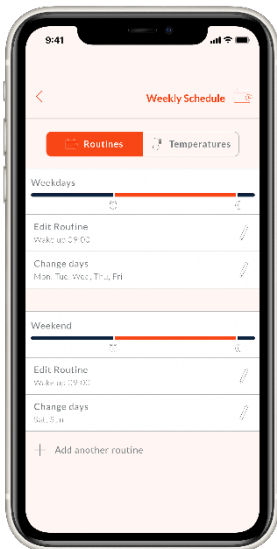
## SAVING CARBON SAVES YOUR CASH!

FLATLINE's concept is simple - domestic energy consumers benefitting from low, fixed price heat and power bills whilst also providing domestic Demand Side Response services to lessen the impact of those homes on the National Grid.

The 18 month project, led by collaborators Sero and PassivSystems supported by Pobl Living, Tirion Homes and Western Power has evidenced massive saving opportunities for homes with the capacity to regulate, store and generate energy. Residents are benefitting from savings varying from 25% up to almost 60% (dependent on usage patterns) when compared to an average EPC B home of the same size.

The project, supported by the Department for Business, Energy and Industrial Strategy (BEIS), trialled its methodology on two newbuild pilot sites with astonishing results. All homes within the Parc Eirin development in Tonyrefail and 3 homes at The Mill in Cardiff are fitted with the FLATLINE technologies which comprise:

- Solar panels for energy generation
- Battery for energy storage
- Smart hot water tanks
- Ground source heat pumps
- EV chargers
- Building Energy Engine (BEE) – the background energy management systems developed by Sero and PassivSystems



Resident comfort is the ultimate priority, and each home has a bespoke heating schedule formulated to meet each residents' individual needs whilst maximising the home's potential. Residents provide an insight into their weekly routines including:

- what time they wake up
- what time they leave for work
- what time they return from work
- what time they go to bed

Each of these events is set to the desired temperature, whilst the BEE intelligently draws, discharges and anticipates energy demands. This means the residents need not adjust their living habits to reduce their bills and carbon footprint, the intelligent energy system does that for them! Should the residents wish to change their set temperatures or schedules, they can do so by the click of a button through the Sero Life App.

To achieve these revolutionary outcomes, project collaborators Sero and PassivSystems partnered with Sonnen, Mixergy, Photon, Kensa and Western Power to design and implement a synchronised system.

Residents can now kick back and relax knowing that the low carbon smart technologies built into the fabric of their new home is saving them money, time and the planet!