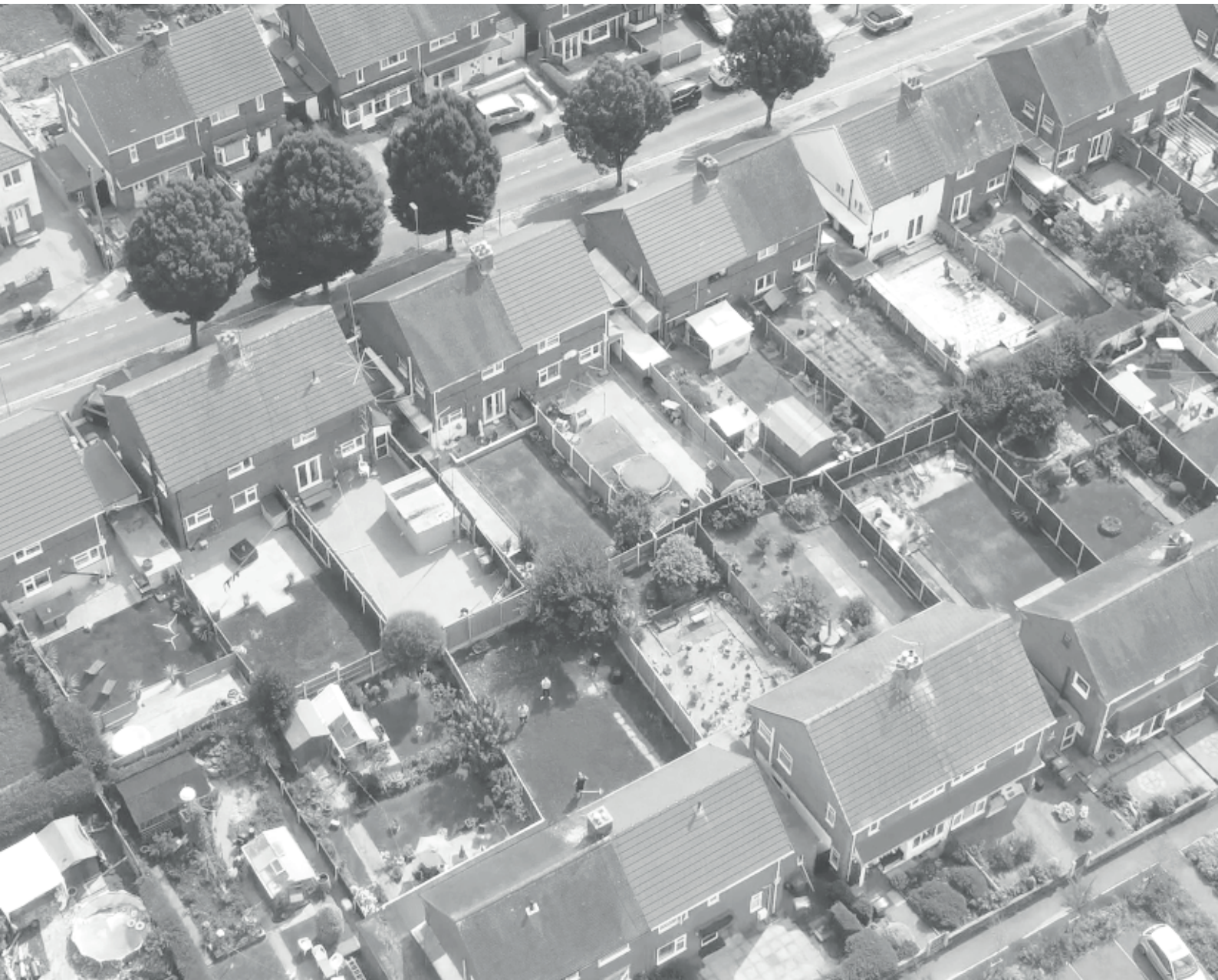
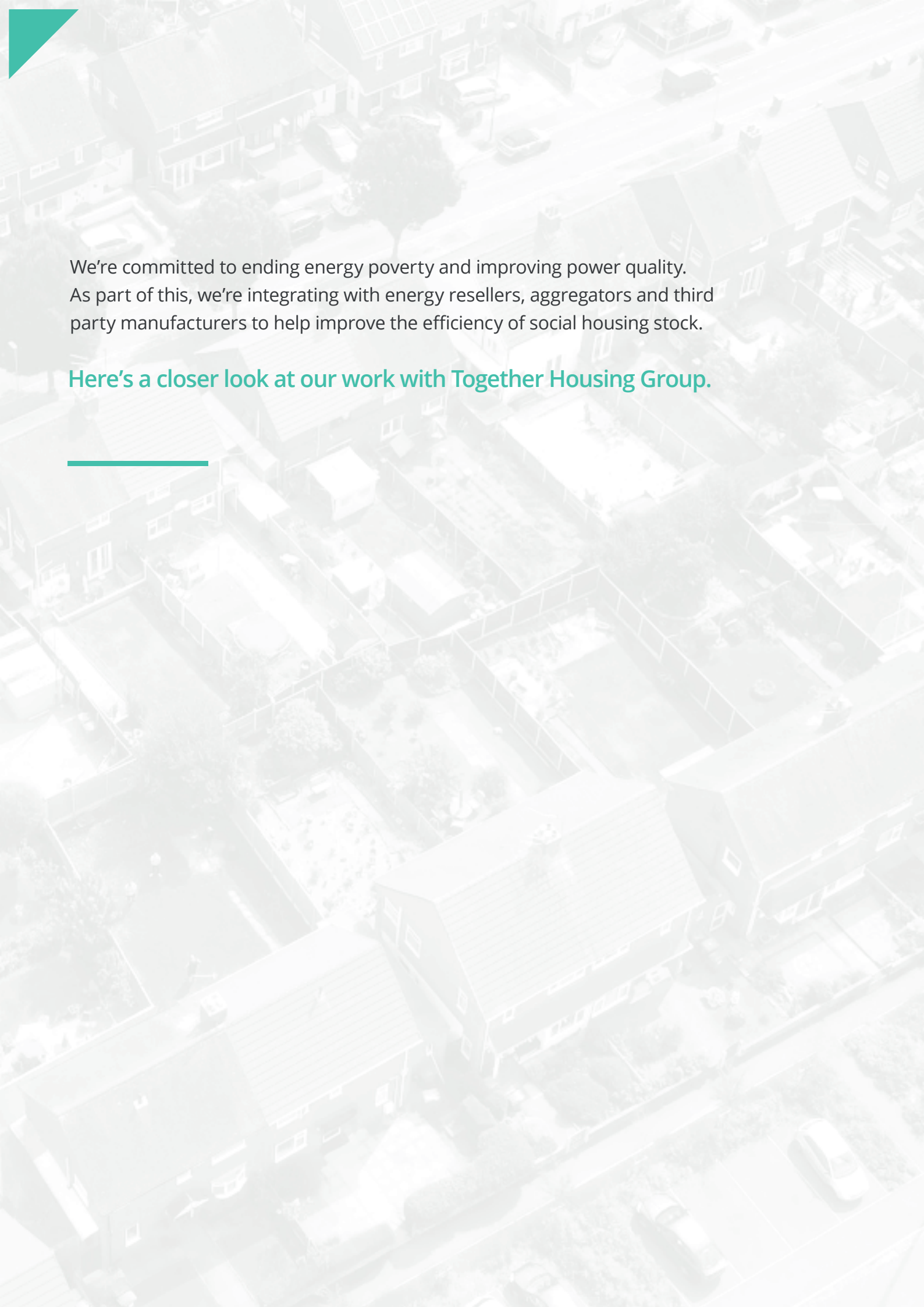
GivEnergy®

PROJECT SPOTLIGHT

Helping end fuel poverty for 27,000 homes





We're committed to ending energy poverty and improving power quality. As part of this, we're integrating with energy resellers, aggregators and third party manufacturers to help improve the efficiency of social housing stock.

Here's a closer look at our work with Together Housing Group.

Project summary

GivEnergy served as the battery storage provider for a ground-breaking social housing project. To secure the work, we succeeded in a competitive tender in which technical specification and quality were critical.

The pioneering project entails the installation – and integration – of multiple third-party energy technologies.

The project combines:

- Solar PV
- Storage batteries
- Air source heat pumps

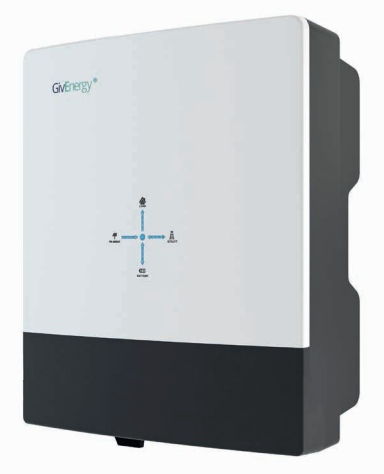
The project's end goal is to maximise the benefits of smart energy systems. In turn, the social housing occupants can power their lives cheaply, cleanly, and in line with the UK's net zero goals.

In its far-reaching project, Together Housing Group was aiming to put solar and storage into **27,000 social homes** in the UK. Ultimately, the Group chose GivEnergy as the best-placed provider, with the best-placed technology, to power the vast battery storage part of its project.

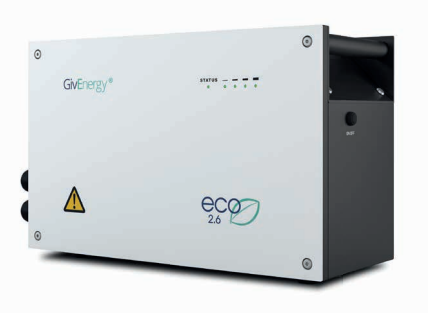
Project work

GivEnergy has the manufacturing infrastructure to meet the needs of large-scale projects. Plus, the quality and flexibility of our systems make them perfect for complex requirements.

So, Together Housing Group opted to utilise:



- The GivEnergy **hybrid inverter**



- The GivEnergy **2.6 home battery**

Our Giv-Bat 2.6 is perfect for new build and social housing projects where smaller storage capacity is required to start that can then be increased over time.

Due to its compact design, the **2.6 battery** is suitable for installation in loft spaces or hard to access areas. The battery can also be banked together easily. So, it's easy to reach the desired capacity for multiple households of varying sizes.

Beyond the quality and flexibility of the products, it was GivEnergy's easy integration with third-parties that helped ensure the project's smooth success.

Together Housing was working with multiple manufacturers to bring multiple technologies together, and using an aggregator to control and monetise the system. **Thanks to GivEnergy's API, this integration was seamless.**

Project results

With GivEnergy technology in place – seamlessly integrated with solar PV and third-party air source heat pumps, occupants can:

- Store green energy from renewables and/or from the grid via off-peak tariffs
- Use that stored energy to cheaply and cleanly power their homes
- Manage and monitor their energy management system at the tap of an app
- Live cheaper, greener, and with more control over their energy spend

Looking more specifically at numbers, the overall projections for the project are as follows:

- An average solar install size of 3kW peak is assumed
- PVGIS solar data is used
- 2017 UK government CO2 figures are used
- A 2017 rate of 0.35156 kg CO2e/kWh gives us 211,200 kg CO2e saved across the entire project; this is 844.8 kg CO2e on an annual per house basis
- Our figure for estimated annual generation (EAG) is 801 kWh/kWp installed, so total generation will be 2403 kWh on an annual per house basis
- Of this figure 80% is assumed to be used by the customer which is 1922.4 kWh straight to the tenant, again on an annual, per house basis
- At the Utilita rate of £0.14692/kWh this is equivalent to £282.44 in energy savings, again on an average, annual, per house basis. Other estimates from our models show £299.74.
- DECC (2014) gives the average annual domestic electricity consumption as 4000 kWh so this would be a 60% reduction in CO2 if applied to the average UK home

Closing notes

Converting England's homes to renewable energy sources is key to meeting the UK's net-zero target by 2050.

While everyone agrees that countries need to decarbonise their housing stock, housing providers need to feel confident that the transition will be sustainable both for their tenants and for their finances.
The Together Housing scheme leads the way with a scheme that has the potential to revolutionise the sector's relationship with renewable energy.

Now, the Group's innovative framework – including our GivEnergy storage battery and hybrid inverter technologies – will be made available to all social landlords across the country. **So, together, service providers can continue in a collaborative push to end fuel poverty in the UK.**