

## **Stirling District Council – Solar PV and Battery Storage Project**

Stirling Council started its capital investment programme in solar PV and battery storage back in 2011 and is committed to installing renewable technology to as many of its 5,700 social housing units as was technically feasible. The primary aims of the investment was to reduce fuel poverty, reduce the carbon footprint, maximise the energy efficiency rating of each Council home and to become the leading social housing provider in Scotland in delivering solar PV and battery storage to social housing properties.

FES Support Services has been involved with the project since 2011 and is the current preferred framework contractor providing installation and maintenance services.

The programme is now in its fourth phase with more than 3100 Installed systems with tenants saving on average £250 a year on their electricity bills.

To date FES has also installed 0.924MW of battery storage since we first started installing Tesla battery storage systems in 2018 for Stirling Council. In the period of 6<sup>th</sup> May 2018 to the 6<sup>th</sup> May 2019 we have installed 26 Tesla battery storage systems at 14kWh capacity linking into existing Stirling Council PV systems. This brings the total number of solar PV installations to date to over 3,000 homes and more than 200 co-located battery storage systems.

One of the challenges of the project was dealing with a housing portfolio that included properties with small roofs, including tenement blocks and properties located in conservation areas. This was overcome by FES by specifying a market leading product from SunPower that provided a high wattage output panel within a reduced footprint, allowing the smallest properties to achieve the maximum solar PV output possible.

With the ongoing development of renewable energy technologies, FES has been installing Tesla battery storage systems alongside the solar PV systems for Stirling Council since 2017. The Tesla battery storage system is a highly beneficial technology that allows tenants to store excess electricity generated from the solar PV rather than exporting it to the grid. This increases the self-consumption of the properties significantly and we have data showing tenants were 99% self-sufficient from the grid at certain points throughout the year using only solar PV and battery storage.

The contract also includes a remote monitoring, planned maintenance and reactive call-out service provided by FES from our in-house 24/7/365 call centre located in Stirling. This service monitors all installed systems to ensure that they are producing to required outputs and that any faults that occur are responded to within the required service level agreements.