

Design and Access Statement for a new sustainability Proposal at Sport in Desford (SiD)

This development comprises:

- 1. 60 KW 3 phase Air Source Heat Pump (ASHP) facility with a Coefficient of Performance (COP) of around 2.5 replacing the existing two condensing gas boilers (30KW and 38KW). The ASHPs would be set to take both the heating and hot water loads.**
 - 2. a new 20 KWp (approx.) solar array on the NW facing roof of the clubhouse working through a 12KW inverter (the max allowed by our DNO: NGED) to help provide for the extra electrical demand of the ASHP. This aspect being a permitted development.**
- The site comprises approximately 2.2 hectares and is situated about half a mile south of Desford village, is owned by Desford Parish Council, and leased to the Registered Charity "Sport in Desford" (Reg, No,: 1100319) on a 99 year peppercorn lease with 85 years to run.
 - The site is rural, being surround by 3 fields on 3 sides and by Peckleton Lane on the west side.
 - This development will be compliant with MCS 020 and meets the requirements of the National Planning Policy Framework
 - The external units will be placed in a non-prominent position, 1 metre away from the NW boundary of the rear car park at SiD.
 - Parking: The front entrance car park has 55 spaces, the front of building car park has 26 spaces and the ASHP external units will be placed alongside the rear car park which has 17 spaces. No spaces will be removed by this application.
 - The 2 internal units and the 300 litre buffer tank will be placed in the existing boiler room on the NE corner of the main building
 - The pipework between the internal and external units will be approx 15m in length and will be placed below the tarmac of the rear car park, taking care not to interfere with other underground services
 - A Noise Impact Assessment (NIA) is not required as this is in a remote corner of the SiD site and adjacent to 2 agricultural fields. In respect of

any possible noise impact, and as a matter of courtesy, we have informed our 2 nearest neighbours at The Bungalow (Brethren Church), Peckleton Lane and Mr and Mrs Botterill at Oak View, Peckleton Lane of this proposed development, both being more than 80m distant from the proposed site of the external units. In both cases they are also screened by substantial tree cover and as the heating is always turned off after 10pm, the Heat Pumps will not be running overnight.

- No trees will be removed for this development
- The development will not change the ground and surface water run offs; the site does not suffer from any flooding issues
- There are no public rights of way crossing this site
- Grid-Connected Battery: This system will continue to support grid balancing and maximize the utilisation of solar-generated power together with the existing 6 Tesla Powerwall 2 batteries, aligning with our commitment to sustainability and reducing our carbon footprint.
- DNO reinforcement works are to be undertaken to accommodate the extra electrical requirements of this development
- The project involves the deployment of the existing solar panels and batteries supplemented by the proposed ASHPs and the new solar array in order to achieve:
 - 1. Grid Balancing: The battery system will actively continue to participate in grid balancing by absorbing excess electricity during periods of high solar generation and injecting power back into the grid when demand exceeds supply. This enhances grid stability and reliability.
 - 2. Solar Power Optimisation: To ensure efficient use of solar-generated electricity, the battery system will store excess energy during sunny days and discharge it when solar production is insufficient, thus reducing our reliance on fossil fuels and minimizing peak demand charges.

In conclusion Sport in Desford believes that this development will help us to achieve our long standing ambition to become one of the first sports complexes in the UK to achieve Net Zero.