



**I.E.D.  
Installations  
Limited**

**Committed to  
Service**

**KIRKBY LEISURE CENTRE, KNOWSLEY BOROUGH COUNCIL**

- **Project Value: £3.2 million**
- **Project Type: Decarbonisation Upgrade**
- **Project Aim: Reduce Carbon Footprint**
- **Project Completion: July 2023**

**KIRKBY LEISURE CENTRE**

**KIRKBY LEISURE CENTRE, KNOWSLEY BOROUGH COUNCIL**



**Knowsley Council**

Knowsley Council are continuing their development and upgrade to each of the Public Buildings (PSDS Public Sector Decarbonisation Schemes) across the current council buildings to reduce their carbon footprint.

The council intend to invest further into the Kirkby scheme to bring a range of energy efficiency improvements. IED's works included 11 air source heat pumps to replace the existing gas heating system, the installation of LED lighting through the building and 758 roof-mounted solar panels. The system will be capable of generating 290MWh per annum, the equivalent of powering 100 homes within the borough for a whole year.

These energy-saving initiatives are part of the council's climate emergency response, which aims to reduce its carbon emissions to net zero by 2040.

The installation of the new low carbon technology is expected to reduce the energy costs at Volair Kirkby and will also save 450 tonnes CO<sub>2</sub>. The Council hope to see significant changes with permanent annual savings, subject to future energy unit cost increases.

The Leisure Centre split into the north & South (Front and Back) Installation the North being via the main Entrance and South Adjacent to Cheery Field Avenue. IED had to strategically programme the works around the full use of the building working to a stringent programme to changeover the pool main ASHP's whilst retaining all BMS Operations to all the Mech Plant throughout the programme.

Funding from the Public Sector Decarbonisation Scheme will be used for low carbon upgrades to the heating, new LED lighting throughout the buildings and solar panels on the roof, These improvement works will ensure that Knowsley Council can operate from high quality facilities and enable them to fulfil that aim.

Knowsley is the borough's infrastructure organisation for voluntary, community, faith and social enterprise providing the expertise and support to help the sector to start, grow, build resilience, and thrive. It provides specialist information, advice and guidance enabling opportunities for collaboration and influence.

Our Installation programme was a 36 Week turn round with the project delivered on time, due to upstream event commitments to the Local Kirkby Surrounding Area that populate and frequently use the Leisure Centre, that also supports Schools, and Disability needs for all ages.

All IED Sub Contractors & Operatives maintained the highest behaviours commented by both the Volair Estates management and Council heads to work within the Leisure Centre as the Building maintained their events schedule whilst remaining open to the General Public.

The Council entrusted IED working alongside the Principal Design team to carry out the Load Assessments for each building to assist with the design and coordination to Upgrade the Building and to achieve the maximum carbon efficiency to the leisure Centre this in turn impacted on the systems overleaf:-

- ❑ Electrical Lighting LED Upgrade
- ❑ Mechanical Heating system to incorporate both Air Source Heating & New Radiators
- ❑ New Photovoltaic Roof Panels
- ❑ External Drainage Surveys to the South Compound (Existing) then Modifications to follow detailed Dilapidation Reporting and Engineering Coordination
- ❑ New External Steel Doors, Fencing and Acoustic Panels (Specific to the North Compound Via main Entrance)
- ❑ New L1 Fire Alarm Main Panel Upgrade
- ❑ New 11KV HV/LV Sub Station within the South plantroom with SSP Scottish Power HV/LV Transformer Fit out, with all Building, Civils & Electrical Coordinated by IED.
- ❑ New North Plantroom GRP M&E Unit and Slab Coordinated by IED.

**We coordinated directly with the Council Design Team & Volair Estates Management for:-**

- ❑ Mech Drain down & System field modifications for the current heating system and new Mechanical Design
- ❑ BMS and Heating Controls for the Heating system
- ❑ Supply load assessment of the original electrical system to develop the design alongside the Council.
- ❑ Internal Earthing assessments at the origin for Bonding for the new PV connected back to the original earthing for energy transfer.
- ❑ All Framework & Load Assessments of the Roof for the PV Array and Design Coordination for the PV panels and field containment, again with agreed Client design
- ❑ DNO Direct Network Operator Application direct for our client for the PV Generation
- ❑ Lifting & Traffic Management of the local area

Main Contractor:  
**M-E & PV Array Installers**



**Knowsley Council**





















