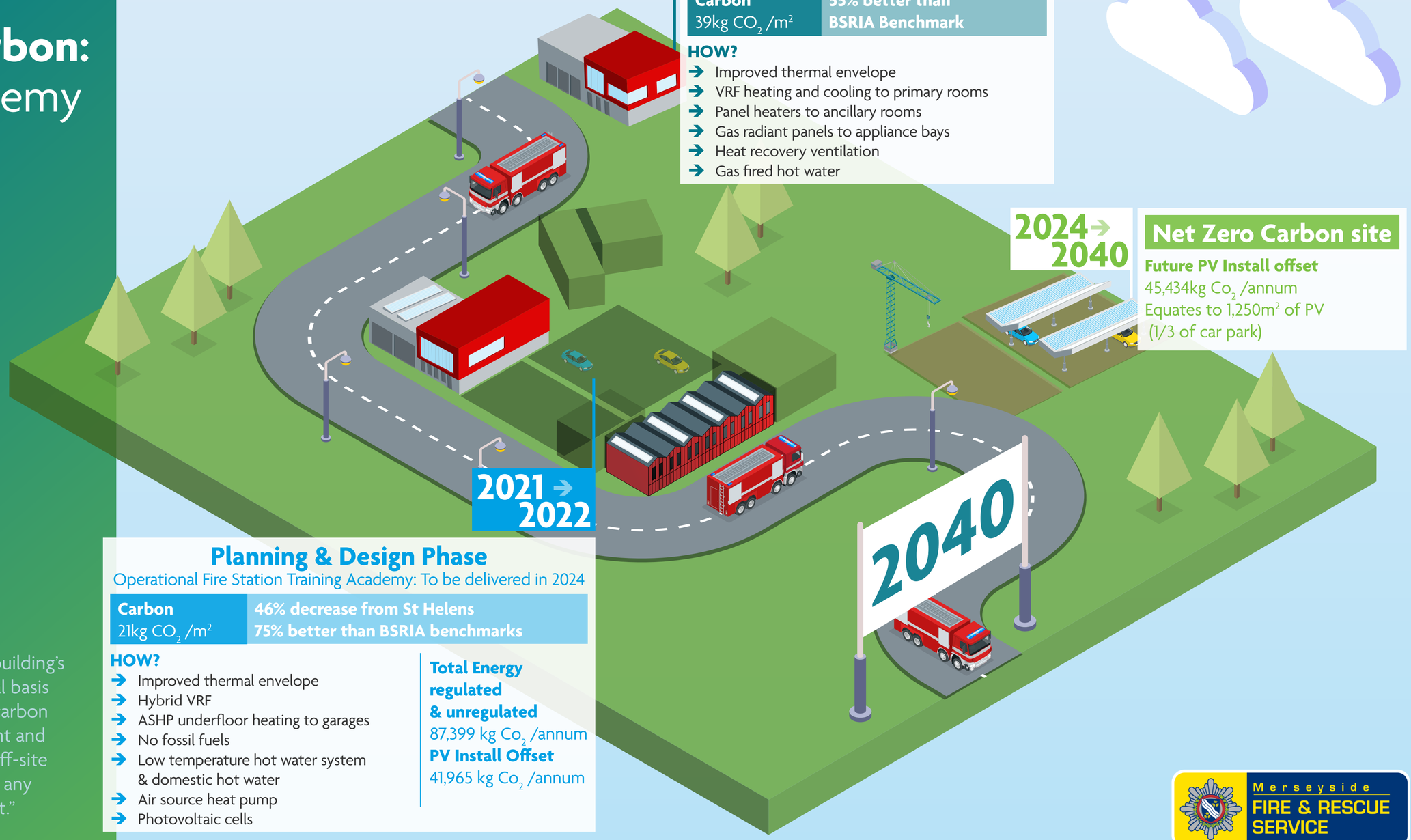
Merseyside Fire & Rescue

Pathway to Net Zero Carbon: Training Academy

Net zero carbon - Operational Energy:
"When the amount of carbon emissions associated with the building's operational energy on an annual basis is zero or negative. A net zero carbon building is highly energy efficient and powered from on-site and/or off-site renewable energy sources, with any remaining carbon balance offset."



2014 → 2019

We built three new fire stations
Prescott | Saughall | St Helens

Carbon	55% better than BSRIA Benchmark
39kg CO_2 /m²	

HOW?
- Improved thermal envelope
- VRF heating and cooling to primary rooms
- Panel heaters to ancillary rooms
- Gas radiant panels to appliance bays
- Heat recovery ventilation
- Gas fired hot water

2024 → 2040

Net Zero Carbon site
Future PV Install offset
45,434kg Co_2 /annum
Equates to 1,250m² of PV
(1/3 of car park)

2021 → 2022

Planning & Design Phase
Operational Fire Station Training Academy: To be delivered in 2024

Carbon	46% decrease from St Helens 75% better than BSRIA benchmarks
21kg CO_2 /m²	

HOW?
- Improved thermal envelope
- Hybrid VRF
- ASHP underfloor heating to garages
- No fossil fuels
- Low temperature hot water system & domestic hot water
- Air source heat pump
- Photovoltaic cells

Total Energy regulated & unregulated
87,399 kg Co_2 /annum
PV Install Offset
41,965 kg Co_2 /annum

Merseyside FIRE & RESCUE SERVICE

Merseyside Fire & Rescue

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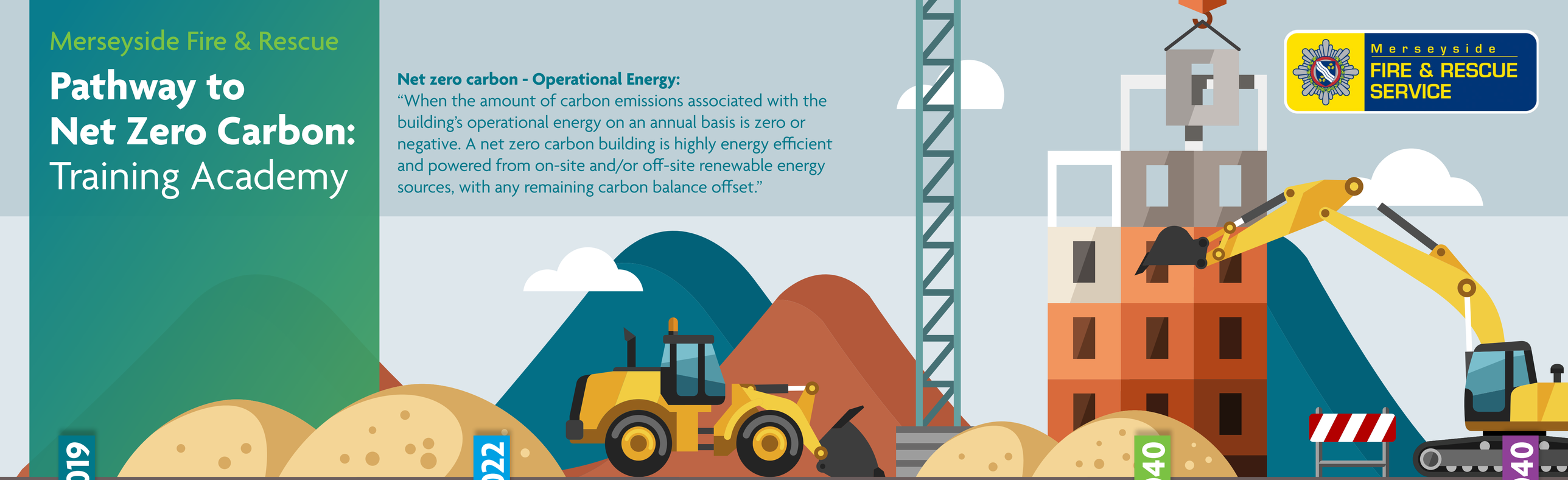

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PLANNING & DESIGN PHASE

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