

CREATIVE ENERGY'S 5 C'S TO NET ZERO

1

COLLATE

To start your journey on the pathway to achieving Net Zero status, we help you identify a suitable net zero target for your project, for example this could be CRREM, NABERS or UKGBC. During the collate stage we will undertake a site visit, conduct a Net Zero audit, and identify any opportunities and develop a net zero pathway. We then undertake a review of the audit to better understand its findings and implications for the building owners and occupiers.



2

CONSTRUCT

We construct a dynamic thermal model that acutely represent the buildings geometry, thermal mass, climatic weather patterns, operational usage, and renewable energy generation. During the construct stage we develop an accurate energy and carbon baseline for comparison to the Net Zero targets defined at the collate stage. The baseline performance is then analysed against the target trajectory where we identify intervention opportunities.



3

COLLABORATE

During the collaborate stage the intervention opportunities identified at the construct stage are reviewed with the wider design team and stake holders. This review helps us all to better understand the building's current operation and any future plans of works needed to achieve a Net Zero status. Some of the key interventions that are at our forefront are optimisation, efficiency, fabric, deep retro fit and renewables. Net-zero goes beyond operational energy efficiency. It involves considering the entire lifecycle of a building or system, including the embodied energy of materials, construction processes, and end-of-life considerations.



4

CALIBRATE

Creating a digital twin involves calibrating the simulation model to match the real-world building's performance and behaviour. This process ensures that the digital twin accurately represents the physical building and can be used for various analyses, optimisations, and monitoring. Integrating the calibrated model into a digital twin platform or software that enables real-time monitoring, analysis, and optimisation. This integration allows for ongoing performance evaluation, predictive maintenance, energy management, and decision-making based on the digital twin's insights.



5

CONTINUITY

During the continuity stage we can recognise and respond to changes in performance, objectives, and targets. This is an ongoing basis, where we continue to monitor and analyse site performance, periodically reviewing and responding to the impacts of interventions made, changes in the buildings use, and changes to industry targets and benchmarks.

