



Case Study:  
Construction Decarbonisation

May 2024

Helping you plan for, and deliver

Net Zero

# Case Study: Net Zero Targets & Action Plan



- Our commitment to innovation, sustainability, and excellence sets us apart in the industry.
- From embracing Modern Methods of Construction (MMC) to advancing net-zero solutions and harnessing the power of Building Information Modelling (BIM) and digital design, we pride ourselves on being at the forefront of an ever-changing industry.



- Go Green Experts is a boutique Net Zero & ESG consultancy, focused on helping companies lower their carbon emissions and create a robust strategy for Net Zero. We focus on building long-term trusting relationships.
- We have helped many lead contractors and sub-contractors in the Construction industry, a sector we understand well.

## Context

Wynne has been a client of Go Green Experts (GGE) for over 4 years and in that time GGE been a key partner for Wynne, supporting our client on their sustainability journey. Initially GGE helped Wynne set ambitious Net Zero targets with a supporting action plan. The robustness of this plan has since helped Wynne to be successful in numerous tender bids – adding £millions to their top line.

## The Challenge

Wynne manages dozens of construction sites each year, and it is the work on these sites, coupled with decisions made at the design stage of the construction process that ultimately drives most of Wynne’s Greenhouse Gas (GHG) emissions. Wynne was aware of various decarbonisation options for their sites but were uncertain about how to select the most effective solutions and implement them successfully.

## The Solution

To tackle this challenge, Wynne partnered with GGE who gathered in depth data of activity across 14 construction sites. From this data gathering exercise it became clear that emissions fell into a small number of distinct “business” categories, which each had a clear decarbonisation pathway. Leveraging our expertise in data analytics, energy management, fleet, and building material emissions, Go Green Experts conducted a structured commercial analysis. This involved benchmarking client performance against external market standards and identifying additional areas for commercial value in achieving Net Zero.

A key insight here is that activity data capture and GHG calculations at the construction site level need to become increasingly robust over time, and the correct software embedded into the organisation for capturing and reporting on the data is vital. This is a key step which is specific to the construction industry as construction sites change regularly and can span multiple time periods. The decarbonisation process is made a lot easier by focussing on this data capture and reporting as a priority.

## The Outcome

A structured plan was approved, outlining an achievable, time-bound trajectory towards Net Zero emissions by 2040 and a 50% reduction by 2030. This plan provided Wynne with a commercially viable framework for integrating Net Zero into their operational DNA, empowering them to execute a clearly defined programme of work packages.

“Working with GGE has enabled us to not only conform with recent legislation changes, but also to adapt our business and future strategy by looking to embrace alternative technologies in assisting our business to become both more environmentally conscious and efficient.

The collaborative and informative approach by GGE has allowed us to deliver in house training to all staff, giving us the confidence to action our Net Zero plans whilst upskilling our own workforce.

As a business we are already beginning to see both the tangible and intangible benefits of producing a Net Zero plan.”

**Richard Wynne**  
Director



# Net Zero Construction: Key Initiative Areas

## Insight 1

For lead construction firms, emissions are driven by the below 4 key areas

### 1. Influence project design

Wynne is a champion of low carbon design in their area of expertise, and over time Wynne are influencing customers to adopt more sustainable design principles including “BREEAM Outstanding” and “Passivhaus” standards.

### 2. Measure material emissions accurately - then focus on key emission drivers

With most construction firms there is an 80/20 rule where 20% of the materials used cause at least 80% of the material emissions. Of course, steel and concrete are often in the top 20%. In these scenarios there are increasingly lower carbon versions of the material available and the GGE House view is that very low carbon steel and concrete will be available at compelling price points by 2040, given the pace of development in these areas.

Many material manufacturers now have EPD reports which provide the carbon intensity of their materials, making calculation of emissions more accurate, and allows the lead contractor to source lower carbon materials more easily in future.

### 3. Engage Subcontractors

Lead contractors will not be able to reach Net Zero without \*positively\* bringing their Sub-Contractors on the journey with them. Many subcontractors are SMEs who will need support and guidance to help them deliver Net Zero. Go Green Experts has expertise in engaging the Supply chain and working collaboratively with subcontractors - helping them to set realistic net zero targets, carbon reduction plans and change delivery.

### 4. Measure activity on construction sites

A system for recording key activities on site provides valuable insight on where the “hot spot” site emissions are occurring. This includes the weight of various materials used, the quantity of waste and type of waste, the energy used on site, and the vehicles journeys to and from the site. Then analyse the data and drive down the emission hot spots.

## Insight 2

A clear strategic theme is to “Electrify Everything”

### Electrify The Vehicle Fleet

- HVO/HVMO may be a useful vehicle “bridging fuel”, but the longer-term strategic solution is to electrify.
- GGE house view is that it is not widely appreciated how fast battery technology will develop in the next 5 years – with range increasing and prices tumbling as battery technology continues to improve exponentially
- Already cars are on a Total Cost of Ownership (TCO) price parity with ICE vehicles
- Vans will quickly reach TCO and range parity before 2028
- HGVs will also be electric in future as the main solution
- “Smart Finance” is required to enable TCO benefits – otherwise upfront EV pricing can stall decision making within the organisation

### Electrify Buildings & Site Energy

- At the building design stage heat pumps must now be prioritised over gas heating – ground source heat pumps in particular are undergoing rapid technical improvements driving down cost. EVs and heat pumps are the natural complementary technologies to wind and solar, in that their use can be time-shifted by a few hours or days to accommodate mismatches in supply and demand.
- On construction sites electric generators are now able to replace diesel generators in many situations: Diesel generators should be used as the exception, not the rule. Again, exponential improvements in battery technology will make the switch to electric generators in more circumstances increasingly feasible – and cost effective - in the near future.

# Why Go Green Experts?



## Focussed on supporting medium & large organisations

From 400 employees up to International PLCs



## Bespoke, jargon free, consultancy for the long term

We visit your sites, we learn about your business, and we work in partnership with you



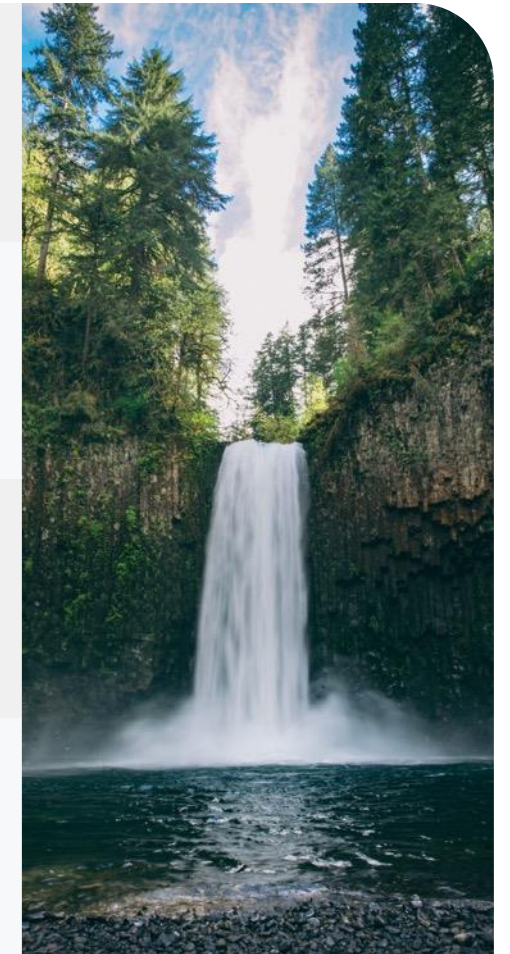
## Experts in carbon reduction strategies, and delivery

You will work with senior consultants who all have a wealth of experience



## Partner with experts

We have a partnership model that allows us to scale to the work required



# Get in touch

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For a friendly chat on how we can help your business, please give us a call. Alternatively, schedule a time and we can call you. Our helpful team will be happy to provide a no obligation consultation on how we can best position your business.



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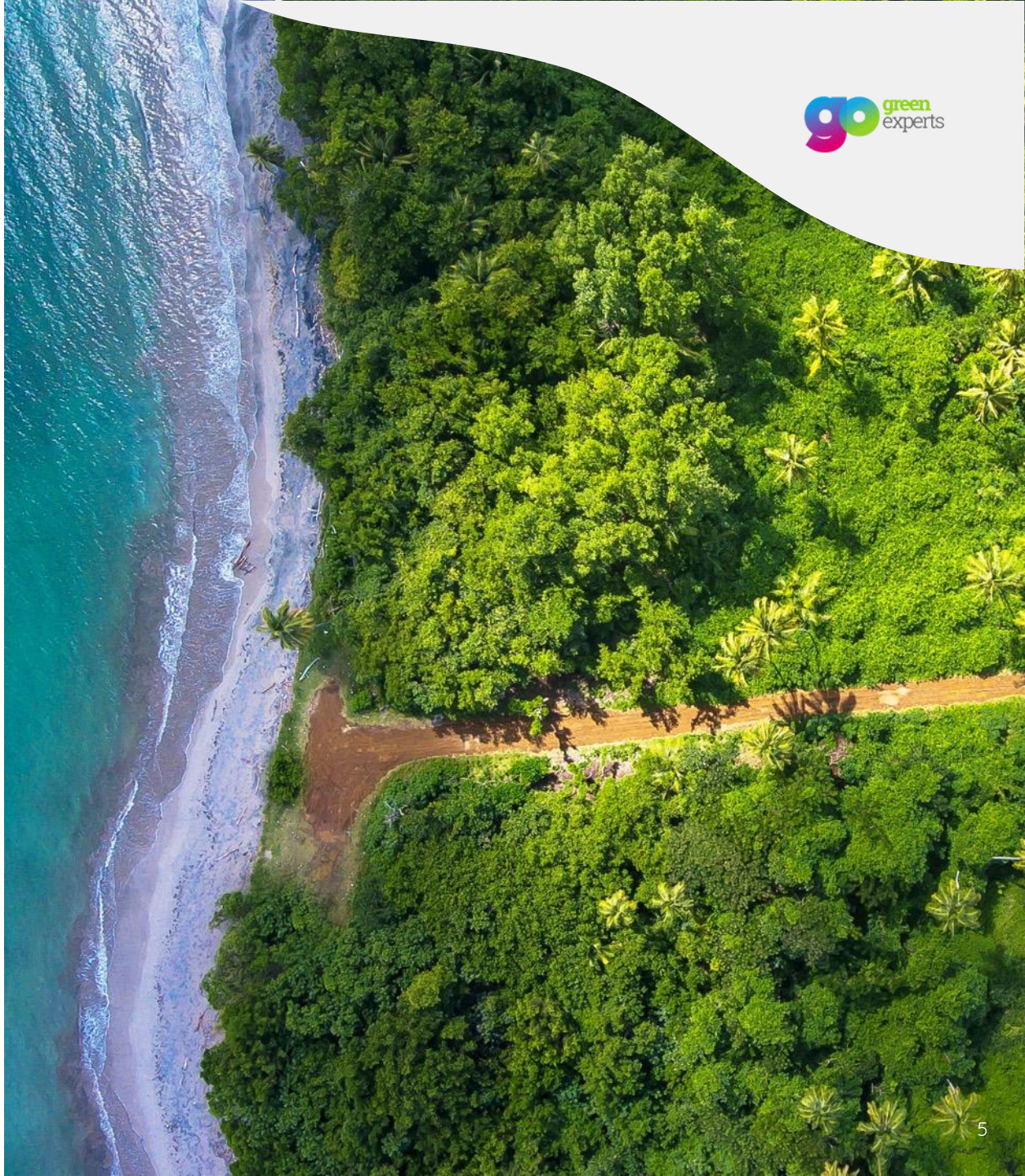
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