New Zero:

[**Setting**](https://www.designingbuildings.co.uk/wiki/Setting)**targets**

Achieving the [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero) [greenhouse gas emissions](https://www.designingbuildings.co.uk/wiki/Greenhouse_gas_emission) target by 2050 will require an unprecedented transformation of the [UK’s](https://www.designingbuildings.co.uk/wiki/UK) [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) [systems](https://www.designingbuildings.co.uk/wiki/Systems). While 2050 may seem distant, in many cases the [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) currently under [development](https://www.designingbuildings.co.uk/wiki/Development) will take years to deliver and will be [operational](https://www.designingbuildings.co.uk/wiki/Operational) well beyond 2050. So to achieve [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero), action must be taken now.

ICE’s July 2020 [State of the Nation 2020: Infrastructure and the 2050 Net-Zero Target](https://www.ice.org.uk/news-and-insight/policy/son-2020-infrastructure-and-2050-net-zero-target) [shed](https://www.designingbuildings.co.uk/wiki/Shed) [light](https://www.designingbuildings.co.uk/wiki/Light) on the [policy](https://www.designingbuildings.co.uk/wiki/Policy) challenges for putting [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) on a [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero) [footing](https://www.designingbuildings.co.uk/wiki/Footings). The [report’s](https://www.designingbuildings.co.uk/wiki/Report) central recommendation was for [government](https://www.designingbuildings.co.uk/wiki/Government) to deliver an integrated [plan](https://www.designingbuildings.co.uk/wiki/Plan) for [transitioning](https://www.designingbuildings.co.uk/wiki/Transitioning) the [UK’s](https://www.designingbuildings.co.uk/wiki/UK) economic [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) networks to [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero).

At present, there is a [policy](https://www.designingbuildings.co.uk/wiki/Policy) gap between the [UK’s](https://www.designingbuildings.co.uk/wiki/UK) legally binding goal for reaching [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero) [emissions](https://www.designingbuildings.co.uk/wiki/Emissions) by 2050 and [government](https://www.designingbuildings.co.uk/wiki/Government) action to achieve this. This is well documented by the [Committee on Climate Change](https://www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/). While the [UK](https://www.designingbuildings.co.uk/wiki/UK) has an ambitious target, it does not have a comprehensive [plan](https://www.designingbuildings.co.uk/wiki/Plan) for how it will be achieved – especially in relation to [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure).

[**Planning**](https://www.designingbuildings.co.uk/wiki/Planning)[**considerations**](https://www.designingbuildings.co.uk/wiki/Consideration)

To address this, ICE has published a [policy paper](https://www.ice.org.uk/news-and-insight/policy/plan-for-transitioning-infrastructure-to-net-zero) that examines what a [plan](https://www.designingbuildings.co.uk/wiki/Plan) for [transitioning](https://www.designingbuildings.co.uk/wiki/Transitioning) [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) to [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero) should consider. It explores the key [policy](https://www.designingbuildings.co.uk/wiki/Policy) choices that need to be made. These choices focus on action required in four [areas](https://www.designingbuildings.co.uk/wiki/Area):

* The future [energy](https://www.designingbuildings.co.uk/wiki/Energy) mix, including the role of the [hydrogen](https://www.designingbuildings.co.uk/wiki/Hydrogen), nuclear, [bioenergy](https://www.designingbuildings.co.uk/wiki/Bioenergy%22%20%5Co%20%22Bioenergy) and other emerging [energy](https://www.designingbuildings.co.uk/wiki/Energy) [technologies](https://www.designingbuildings.co.uk/wiki/Technology).
* [Pathways](https://www.designingbuildings.co.uk/wiki/Pathway) to de-carbonising [transport](https://www.designingbuildings.co.uk/wiki/Transport), including the [electrification](https://www.designingbuildings.co.uk/wiki/Electrification) of [transport](https://www.designingbuildings.co.uk/wiki/Transport) networks and shifting to cleaner [transport](https://www.designingbuildings.co.uk/wiki/Transport) modes.
* [Pathways](https://www.designingbuildings.co.uk/wiki/Pathway) for decarbonising [heat](https://www.designingbuildings.co.uk/wiki/Heat), including the [retrofit](https://www.designingbuildings.co.uk/wiki/Retrofit) of [buildings](https://www.designingbuildings.co.uk/wiki/Building) for [hydrogen](https://www.designingbuildings.co.uk/wiki/Hydrogen), [electrification](https://www.designingbuildings.co.uk/wiki/Electrification), [energy efficiency](https://www.designingbuildings.co.uk/wiki/Energy_efficiency) and [insulation](https://www.designingbuildings.co.uk/wiki/Insulation).
* Reducing [emissions](https://www.designingbuildings.co.uk/wiki/Emissions) from harder to abate sectors, including the deployment of [carbon capture and storage](https://www.designingbuildings.co.uk/wiki/Carbon_capture_and_storage) and [negative emissions](https://www.designingbuildings.co.uk/wiki/Negative_emissions) [technologies](https://www.designingbuildings.co.uk/wiki/Technology).

The need for coherent and joined-up [policy](https://www.designingbuildings.co.uk/wiki/Policy) to be in [place](https://www.designingbuildings.co.uk/wiki/Place) for each of these [areas](https://www.designingbuildings.co.uk/wiki/Area) is not new and is something that has been well explored by experts in the [infrastructure sector](https://www.designingbuildings.co.uk/wiki/Infrastructure_sector) and those allied to it. But in many cases, [government](https://www.designingbuildings.co.uk/wiki/Government) is yet to articulate a strategic direction – inhibiting action by industry to get on and deliver [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero).

To provide long-term [policy](https://www.designingbuildings.co.uk/wiki/Policy) stability and credibility, [government](https://www.designingbuildings.co.uk/wiki/Government) should organise its thinking into a single [net-zero](https://www.designingbuildings.co.uk/wiki/Net-zero) [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) [plan](https://www.designingbuildings.co.uk/wiki/Plan) when the [National Infrastructure Strategy](https://www.designingbuildings.co.uk/wiki/National_Infrastructure_Strategy) is published in Autumn 2020. This is especially important as [infrastructure](https://www.designingbuildings.co.uk/wiki/Infrastructure) [investment](https://www.designingbuildings.co.uk/wiki/Investment) is likely to [play](https://www.designingbuildings.co.uk/wiki/Play) a major role in the economic recovery from [Covid-19](https://www.designingbuildings.co.uk/wiki/COVID-19).

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