



# Hydrogen Plants

**With Tensar you can expect clean, quick construction and safe permanent access over any ground.**

Green hydrogen will be an indispensable part of the renewable energy mix.

**The need for a clean, transportable liquid fuel, generated from renewable electricity, will ensure its future.**

New green hydrogen plants will be located close to renewable energy sources and as close as possible to major industry users. This often means building on weak soils, or brownfield sites close to urban areas.

## IMPACT

This presents geotechnical challenges for access roads and working areas during construction, and for permanent access over the full working life. Storage facilities will require firm foundations and control of long-term settlement.

Tensar has proven groundworks solutions, which if considered from the earliest stages of a project, can offer clean rapid construction, lower construction costs, and reduce environmental impact.

## DECARBONISE

Minimising the construction carbon footprint of any project is essential. It is particularly so for renewable energy projects. Tensar solutions deliver meaningful savings in total carbon emissions by significantly reducing the volume of quarried aggregate required on a project — helping to decarbonise the project supply chain.

## PROTECT

Every hydrogen production and storage project will impact the local environment. Stakeholder concerns will need to be addressed at the planning stage and measures should be taken in the design and construction stage to minimise and mitigate impacts on hydrology, ecology, local infrastructure, and communities. Tensar solutions, when adopted from the outset, can help to protect the environment while minimising hydrological and ecological impacts, as well as aid progress towards biodiversity net gain targets.

## REDUCE

Local communities and infrastructure can be heavily affected during the construction of any major project. Low volume rural roads are particularly at risk from the higher truck loading from construction traffic. Tensar solutions significantly reduce the volume of aggregate required and material excavated and removed from site. This alleviates the traffic management schedule by reducing vehicle movement on and off site, improving safety — minimising damage and congestion to local roads and reducing impact on local communities.

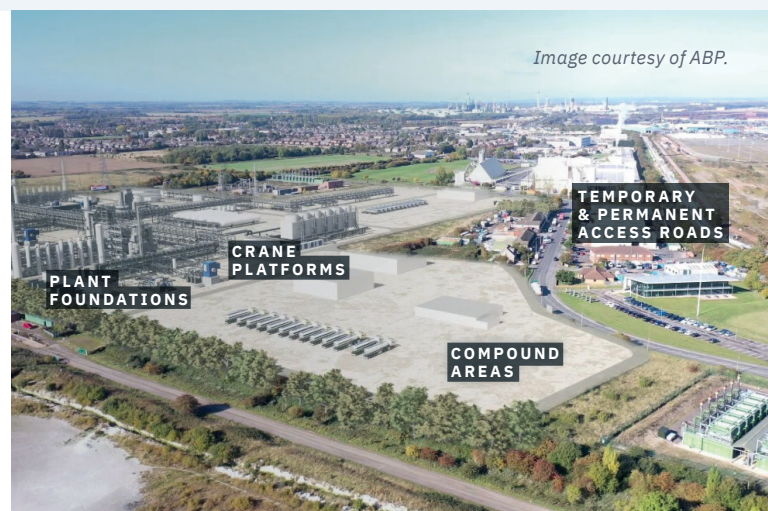


## TRIED & TESTED

With Tensar Renewable Energy Solutions, you can save time, cost and carbon, and have a positive community impact on your next project.

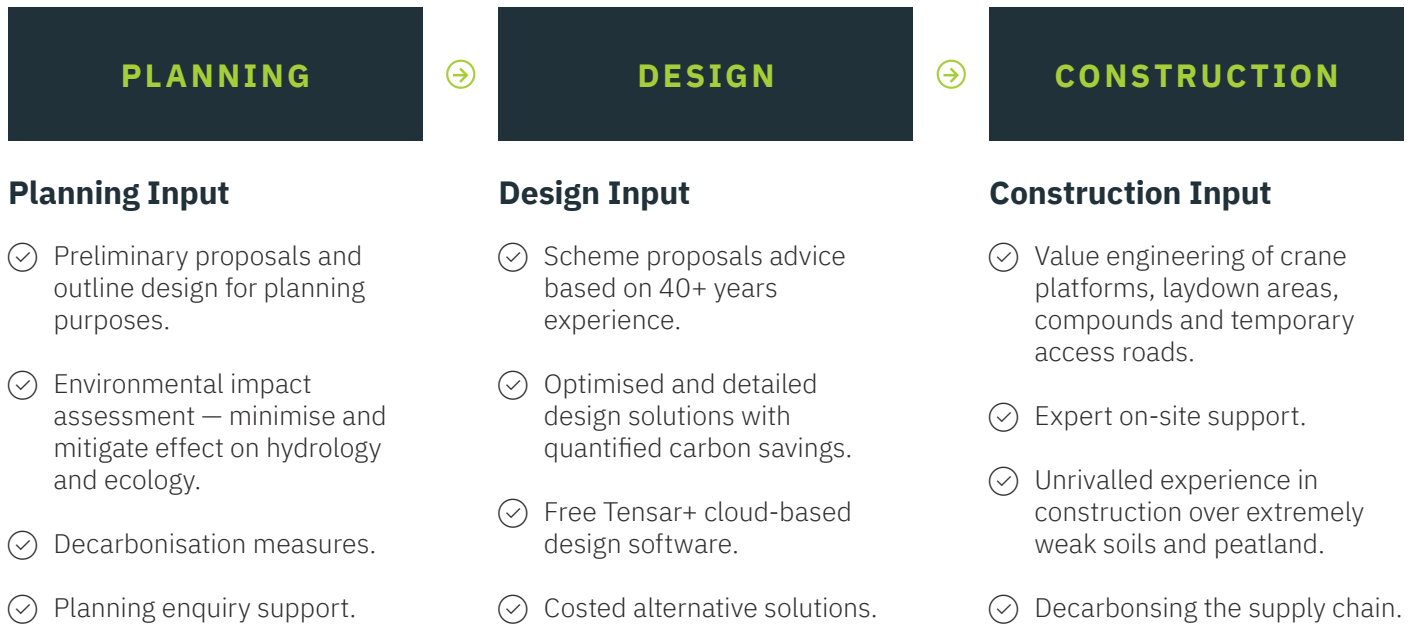
## TENSAR SOLUTIONS FOR GREEN HYDROGEN PROJECTS

- ➔ Temporary and permanent access roads
- ➔ Crane platforms
- ➔ Plant foundation support
- ➔ Pipeline trenching support
- ➔ Earth retaining walls (visual and noise mitigation)



# The three key project stages where **Tensar can make a difference.**

When can Tensar involvement have maximum effect and benefit your project?



How does Tensar Technology benefit your Green Hydrogen Production project?

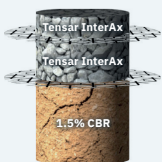


**Tensar InterAx geogrids are engineered to stabilise and strengthen granular soils. The geogrid interlocks with the granular particles, stabilising the soil to create a stronger, stiffer material (MSL Mechanically Stabilised Layer).**

By incorporating one or more layers of Tensar geogrid in a layer of aggregate, the bearing capacity is increased, protecting the weaker soils below. This enables thinner aggregate layers to be used, reducing cost and construction time.

## Access Track

With geogrid



Without geogrid



**44% reduction in thickness** (Typical)

## Compound Area

With geogrid



Without geogrid



**50% reduction in thickness** (Typical)

## Permanent Roads

With geogrid



Without geogrid



**50% reduction in thickness** (Typical)

➞ Access roads

➞ Working platforms

➞ Crane platforms

➞ Tank foundations

let us help you with your next challenge: [tensarinternational.com](https://tensarinternational.com) email: [tensarinfo-intl@cmc.com](mailto:tensarinfo-intl@cmc.com)



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