

GREEN HYDROGEN

Engineering
for new
energies



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DORIS aims to improve access to an affordable low carbon hydrogen, and to support states, operators and final users in the development of their hydrogen projects

H₂

Challenges to the Green Hydrogen Industry

The development of green hydrogen faces several challenges. Green hydrogen has a high cost of production compared to other forms of energy and efforts to scale-up hydrogen production and accelerate its deployment are slowed by a lack of infrastructure for hydrogen's production, storage, and distribution.

Additionally, investors and companies may be dissuaded from launching green hydrogen projects due to the low level of standardization in the production and use of green hydrogen.

Despite those uncertainties, DORIS is convinced that green hydrogen has the potential to play a significant role in the energy mix of the future and this is the reason why we innovate continuously to overcome these challenges and accelerate the development of green hydrogen.

DORIS value proposition

DORIS draws on its 60 years of experience to support the development of green hydrogen strategies and associated projects.

Independent advisory services to define strategy

Focusing on innovation and performance, we provide advisory services to support companies and states in the preparation of comprehensive H₂ development road maps and identify associated economically viable scenarios.

Robust engineering to enable a reliable and cost-effective project

DORIS is committed to delivering the highest value for low-carbon hydrogen producers and their projects. We offer robust engineering services covering the whole green hydrogen value chain ranging from low-carbon electricity production up H₂ production, transport, storage, and usage.

Integrated project management and technical assistance for a safe and timely execution

Our project management services are delivered with a focus on planning and de-risking projects as well as ensuring costs are appropriately controlled. We can flexibly allocate resources to suit our clients' needs, integrating into our clients' technical teams or supervising and managing projects on their behalf.

A unique set of products and solutions for large-scale H₂ production

DORIS has been enabling the growth of the green hydrogen industry since 2019 when we supported the world's first offshore green hydrogen development. From floating structures that accommodate megawatts of electrolyzers to large offshore developments or artificial islands producing million tons of hydrogen per year, DORIS has investigated and prepared "ready-to-be-developed" concepts for its clients.

Our clients' needs along a green hydrogen project development

We support our clients from the earliest phase of their developments starting with the permitting process; we engineer the overall project from electricity production to hydrogen export, recommend the most adapted technologies based on our expert knowledge, and manage projects by preparing EPC consultations and supervising contractors in the execution phase.

Obtain permitting and authorisations

The UK and Europe have taken the lead in developing systematic national legal and policy frameworks for new hydrogen industries, transmission and distribution. DORIS has provided spatial planning and environmental and safety consultancy to projects falling within these new frameworks and guidelines. We act as an intermediary and consultant to the key regulators and help demonstrate our client's careful consideration and responsible approach to project development.

We provide confidence to our clients and their investors that we have knowledge of application of the key new standards and guidelines relevant to the green hydrogen industry and have developed the relevant inputs to safety document submissions.

Optimise and prepare cost-effective project development plans

One of the most effective ways to reduce overall capital expenditure and improve project value is by ensuring

rigorous, quality, and expertly executed front end studies and planning. The knowledge gained from scenarios development and sensitivity cases supports project developers decision making process. Expert in complex and CAPEX intensive projects, we guide our clients through a structured value engineering process ensuring the highest value for their projects.

Select the most suited technologies and suppliers

Overall project performance is often dependent on the deployed technology. Based on project characteristics and early engineering works, DORIS can provide independent advice on technology selection, perform formal benchmark, identify new suppliers, and carry out the overall consultation process for pre-selection.

Engineer the project

Once project has been properly framed, DORIS can execute FEED and detailed design scopes with a focus on achieving the highest standards of safety and performance.

We can perform design work for both operators and EPC contractors. Our in-house teams and our global execution centre are capable of mobilizing resources quickly, creating a strong and integrated team that can work flexibly during the execution phase.

Execute the project

The delivery of projects on time, at cost and at the expected level of quality are the priorities of DORIS teams. We understand project execution constraints and challenges and use our considerable expertise to mitigate these as much as possible. We support our clients in preparing consultation dossiers for EPC, manage the overall consultation process, review contractors' technical and commercial propositions in consideration of performance objectives, and supervise contractors' engineering and construction work.

DORIS, a global leader in Engineering, Advisory and Project Management dedicated to your hydrogen projects



 <p>ENERGY SOURCES</p> <p>Wind Solar Grid</p>	 <p>PRODUCTION & STORAGE</p> <p>H₂ and its derivatives Compression / Utilities</p>	 <p>TRANSPORT</p> <p>Pipeline Ship</p>	 <p>DISTRIBUTION</p> <p>Storage facilities Ports infrastructures Filling stations</p>	 <p>UTILISATION</p> <p>Industries Marine Assets X-to-Power</p>
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