

# AVEVA's role in Hydrogen

How AVEVA drives value throughout the hydrogen value chain



#### Paving a path to a sustainable energy future



A carbon-neutral fuel created using steam reforming. Carbon emissions are stored underground using industrial carbon capture and storage (CSS).



A carbon-free burning fuel produced through electrolysis. Made with clean energy surplus from renewable energy sources.

#### The green hydrogen value chain



AVEVA tools support the transition to green hydrogen throughout the entire asset lifecycle

## Design

- Easily deploy green hydrogen processes and CCUS with solutions that include built-in emissions modeling and sustainability metrics
- Accelerate delivery and reduce installation cost with AVEVA expertise
- Simplify electric system simulation and design with ETAP integration

### Operate

- Enhance decision support with process energy and emission management visualizations
- Respond quickly to weather changes with process scenario analysis
- Create a connected, collaborative, and safe workforce

## Optimize

- Improve energy and material efficiency - and overall profitability
- Optimize operations and asset performance with partner analytics and operational data management solutions
- Enhance supply chain planning and scheduling with the ability to model different energy mixes and emissions scenarios

#### How we are helping diverse customers



## Global EPC uses AVEVA to optimize hydrogen design

Increased visibility increases efficiency

A large Canadian hydropower supplier is using AVEVA's Unified Engineering software with AVEVA<sup>™</sup> PI System<sup>™</sup> data to optimize operational design in its new green hydrogen plant. From design to execution, AVEVA<sup>™</sup> E3D Design and visualization tools are giving teams the visibility they need to increase efficiency, improve collaboration, and reach sustainability goals.



Innovative green hydrogen project design uses AVEVA Engineering solutions

#### Streamlining project management

A leading EPC is using AVEVA<sup>™</sup> Unified Engineering and AVEVA<sup>™</sup> Enterprise Resource Management to manage its South America green hydrogen project design. By easily managing its network of subcontractor teams using one single platform, the EPC can manage risk, keep the project within scope, and ensure an on-time and on-budget project.



Leading Australian PowerGen company selects AVEVA Flex to drive hydrogen vision

#### Building the blueprint

A leading green hydrogen producer in APAC selected AVEVA Unified Engineering, AVEVA Enterprise Resource Management and AVEVA<sup>™</sup> Asset Information Management solutions to build a new hydrogen project blueprint. With access to built-in templates and visualization tools, teams can find new ways to optimize operations, increase efficiency, improve collaboration, and reach sustainability goals. This lays the foundation for digital twins and, ultimately, successful project execution.



Pilot Project uses AVEVA Process Simulation

#### End-to-end efficiency

A leading Saudi Arabian energy company is using AVEVA tools to design and build a green hydrogen simulation model. The team used AVEVA<sup>™</sup> Process Simulation to add battery storage to enable continuous production and predict production capability based on weather prediction data. From simulation to engineering, to design, operations, and maintenance, this project is the first execution of AVEVA's end-to-end green hydrogen vision.

AVEVA software helps industry rethink the design, operation, and optimization of operations and accelerate sustainability ambitions to drive responsible use of the world's resources

Learn more about how AVEVA's software can drive sustainability at aveva.com/sustainability



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