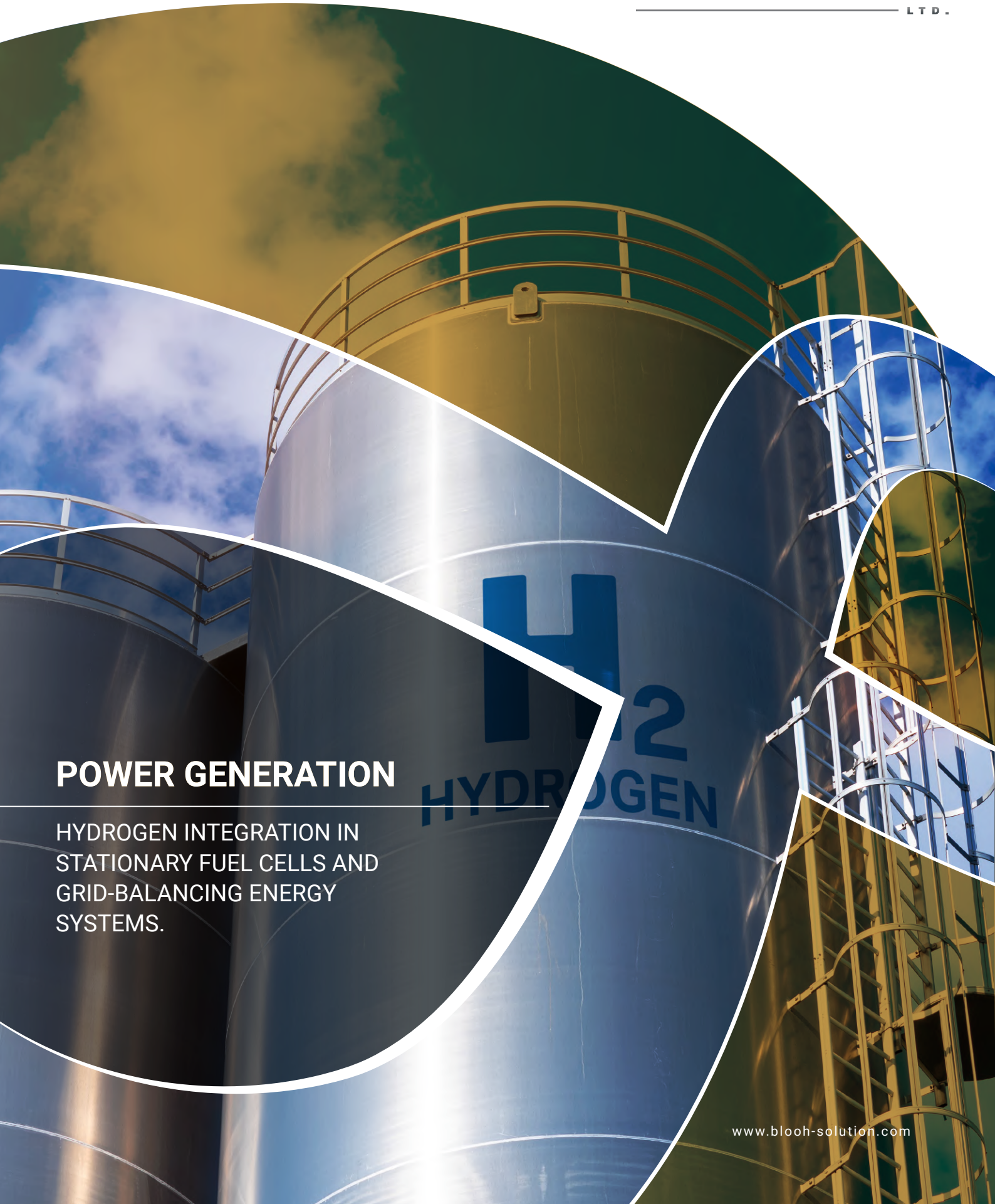
BLOOH SOLUTION LTD.



POWER GENERATION

HYDROGEN INTEGRATION IN STATIONARY FUEL CELLS AND GRID-BALANCING ENERGY SYSTEMS.

www.blooh-solution.com

HYDROGEN-BASED POWER GENERATION

BLOOH Solution is a leading provider of sustainable power generation solut ions that are fast, reliable, and effective. We specialize in the development of advanced power generation technologies that help our customers grow and contribute to the sustainable development of the environment. Our commitment to sustainable power generation is reflected in our use of hydrogen as a clean energy source.

The use of hydrogen as a fuel source and fuel cell technologies for power generation offers many advantages, including high efficiency, fast response time, and low emissions.

BLOOH Solution selects the most appropriate fuel cell technology based on the specific application and customer needs. The integration of green hydrogen storage provides backup power supplies for contingency planning with zero carbon emissions, making it an ideal solution for communities that need reliable power sources in times of distress. Our hydrogen-based power generation solutions and fuel cell technologies are designed to meet the power generation needs of homes, businesses, and communities while contributing to the sustainable development of the environment.

HYDROGEN-POWERED POWER PLANTS

BLOOH Solution'shydrogen-based power generation solutions use electrolysis to produce hydrogen from water. The process involves splitting water molecules using electricity into their component parts of hydrogen and oxygen. The hydrogen produced through this process is then stored in large quantities in hydrogen-powered power plants.

TECHNICAL SPECIFICATIONS:

Electrolyzer: Electrolysis is the process used to produce hydrogen from water. Electrolyzers are used to split water molecules into hydrogen and oxygen using electricity. The electrolyzers used in hydrogen-powered power plants can range in size from small, residential-scale systems to large, utility-scale systems.

Hydrogen Storage: Hydrogen is stored in large quantities in hydrogen-powered power plants. The storage tanks used to store the hydrogen are typically made of steel and are designed to withstand the high pressures required to store the hydrogen.

Fuel Cells: Fuel cells are used in hydrogen-powered power plants to generate electricity from hydrogen. There are several types of fuel cells that can be used in power generation, including proton exchange membrane fuel cells (PEMFCs), solid oxide fuel cells (SOFCs), and molten carbonate fuel cells (MCFCs).

Power Conditioning Equipment: Power conditioning equipment is used to convert the direct current (DC) output of the fuel cells into alternating current (AC) electricity that can be used to power homes, businesses, and communities.

Heat Recovery Systems: Heat recovery systems are used in hydrogen-powered power plants to capture and utilize the heat generated during power generation. The heat recovered from the fuel cells can be used for heating and cooling applications or for industrial processes.

Power Management Systems: Power management systems are used to monitor and control the output of the power plant. These systems are designed to ensure that the power plant is operating efficiently and that the power generated is being delivered to the end-users in a reliable and safe manner.

FUEL CELL TECHNOLOGIES

BLOOH Solution uses a variety of fuel cell technologies in its power generation solutions, including proton exchange membrane fuel cells (PEMFCs), solid oxide fuel cells (SOFCs), and molten carbonate fuel cells (MCFCs).

TECHNICAL SPECIFICATIONS:

Fuel Cell Type	Primary Applications	Efficiency	Operating Temperature	Start-Up Time	Shut-Down Time
PEMFCs	Backup power systems, emergency generators, portable power	40-60%	60-80 °C	Seconds	Seconds
SOFCs	Industrial and large-scale power generation	60-85%	800-1.000°C	Minutes to hours	Minutes to hours
MCFCs	Large-scale power generation, cogeneration applications	50-60%	600-700°C	Hours to days	Hours to days

GREEN HYDROGEN STORAGE

Green hydrogen storage is an important aspect of BLOOH Solution's power generation solutions. Green hydrogen is hydrogen that is produced using renewable energy sources, such as wind or solar power. Green hydrogen can be stored in large quantities and used as a reliable source of energy when needed.

BLOOH Solution integrates hydrogen projects that can serve as backup power supplies for contingency planning. In the event of a power outage, the stored hydrogen can be used to provide electricity to homes, businesses, and communities with zero carbon emissions.

The green hydrogen storage system is designed to be modular and scalable, allowing it to be customized to meet the specific needs of customers. The system can be integrated with other power generation technologies, such as solar or wind power, to provide a complete renewable energy solution.

TECHNICAL SPECIFICATIONS:

Storage Type	Capacity	Efficiency	Recharge Time	Lifetime	Emissions
Hydrogen tanks	Up to several thousand cubic meters	75-85%	Minutes to hours	20-30 years	Zero
Liquid hydrogen	Up to several hundred cubic meters	70-75%	Hours to days	20-30 years	Zero
Metal hydrides	Up to several hundred litres	60-70%	Hours to days	5-10 years	Zero

DRIVING INNOVATION FORWARD!

FOR MORE INFORMATION PLEASE CONTACT:

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