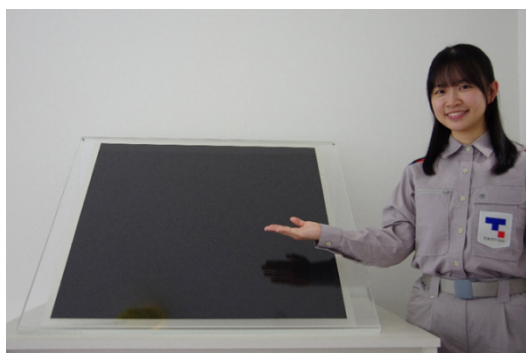


December 9, 2025

Tokyo Gas and SCREEN Ready to Accept Mass Production Orders for “PEXEM™,” a Cost-Efficient Water Electrolysis Catalyst Coated Membrane

Tokyo Gas Co., Ltd.
SCREEN Holdings Co., Ltd.

Tokyo Gas Co., Ltd. (President: Shinichi Sasayama; “Tokyo Gas”) and SCREEN Holdings Co., Ltd. (President: Masato Goto; “SCREEN”) are prepared to accept mass production orders for “PEXEM™,” a cost-efficient catalyst coated membrane (CCM^{*1}) that serves as the core component of PEM^{*2} water electrolyzers.



PEXEM™ (5,000 cm²)



Mass-Production Facility for PEXEM™

Since May 2021, Tokyo Gas and SCREEN have been jointly developing water-electrolysis CCMs by combining Tokyo Gas’s catalyst and evaluation technologies, cultivated through its fuel cell R&D, with SCREEN’s roll-to-roll continuous production technology^{*3}.

In February 2025, SCREEN completed a new factory at its Hikone Site, equipped with manufacturing space for hydrogen-related components^{*4}. Supported by the Ministry of Economy, Trade and Industry’s “GX Supply Chain building category”^{*5} and the New Energy and Industrial Technology Development Organization (NEDO)^{*6}, mass-production lines for water electrolysis CCMs have been installed in the new factory.

With our mass-production readiness now in place, we are able to reliably supply large-area water electrolysis CCMs—up to 5,000 cm² per electrode—at Japan’s largest annual capacity of 2 GW, meeting both domestic and international demand.

For commercial supply, SCREEN will manufacture the products, while Tokyo Gas will handle sales. Depending on market growth, we plan to expand the facility’s capacity to up to 6 GW per year. This marks the world’s first case of an energy company engaging in the sale of water electrolysis CCMs.

The Tokyo Gas Group, under its management vision “Compass 2030”, has declared its commitment to the “Challenge of Achieving Net Zero CO₂.” By promoting the “PEXEMTM” business, we aim to lower the cost of green hydrogen and accelerate its adoption, thereby contributing to the government’s goal of achieving carbon neutrality by 2050. This October, the Tokyo Gas Group celebrated its 140th anniversary. We will continue to take on new challenges as a company that looks beyond Tokyo, beyond gas, and leads the way into the future.

SCREEN aims to address social needs and create shared value through business in order to improve its corporate value and achieve sustainable growth. It is taking a science-based approach to promote sustainable management, such as setting CO₂ reduction targets under its medium-term sustainability plan, Sustainable Value 2026, in line with the internationally acknowledged SBTi framework.

*1: Catalyst Coated Membrane

*2: Proton Exchange Membrane

*3: [Tokyo Gas and SCREEN Agree to Jointly Develop a Water Electrolysis Cell Stack for Low-cost Green Hydrogen Production](#) (May 26, 2021)

*4: [SCREEN Completes the Construction of New Building S3-6 at the Hikone Site](#) (February 14, 2025)

*5: [SCREEN Selected to Receive Subsidy under National Program to Promote the Transition to a Decarbonized Growth Economy](#) (January 28, 2025)

*6: i) *Development of Mass Production Technology for Large-area Catalyst-Coated Membranes (CCMs) for Proton Exchange Membrane (PEM) Water Electrolysis* (FY2023–FY2024) under R&D Item 3: Technology Development for Diversifying Fuel Cell Use, Collaborative Industry-Academia-Government R&D Project for Solving Common Challenges Toward Dramatically Expanded Use of Fuel Cells and Related Equipment
ii) *Development of High-Pressure-Compatible CCM Technology for PEM Water Electrolysis* (FY2025–FY2027 [scheduled]) under R&D Item 3: Development of Technologies for the Practical Application of Fuel Cells and Water Electrolysis, Project to Develop Common Platforms Supporting the Widespread Use of Hydrogen

■Company Profile

Tokyo Gas Co., Ltd.

Established	October 1, 1885
Representative:	Shinichi Sasayama Representative Corporate Executive Officer, President and CEO
Head Office	1-5-20 Kaigan, Minato-ku, Tokyo 105-8527, Japan
Group business segment	[Energy solution business] Production and sale of city gas, LNG sales, etc. Production, supply and sale of electricity Engineering solution business gas appliances, gas installation work, construction, etc. [Network business] Gas Pipeline Service Business, Supply of city gas [Overseas business] Overseas upstream business, midstream and downstream business [Urban business] Real estate development, Leasing and management of land and buildings, etc.
URL	https://www.tokyo-gas.co.jp

SCREEN Holdings Co., Ltd.

Established	October 11, 1943
Representative	Masato Goto President and Chief Executive Officer (CEO)
Head Office	Tenjinkita-machi 1-1, Teranouchi-agaru 4-chome, Horikawa-dori, Kamigyo-ku, Kyoto 602-8585, Japan
Group business segment	Primarily engaged in group management as a holding company, overseeing businesses in semiconductor production equipment, graphic arts equipment, display production equipment & coater, PCB-related equipment, and ICT solution
URL	https://www.screen.co.jp/en