

September 27th, 2019

NORITAKE CO., LIMITED

TOTO LTD.

NGK INSULATORS, LTD.

NGK SPARK PLUG CO., LTD.

**Four companies in the Morimura group  
(NORITAKE CO., LIMITED, TOTO LTD., NGK INSULATORS, LTD.,  
and NGK SPARK PLUG CO., LTD.)  
established joint venture for Solid Oxide Fuel Cell**

Four companies in the Morimura group (NORITAKE CO., LIMITED (President: Hiroshi Kato, hereafter NORITAKE), TOTO LTD. (President: Madoka Kitamura, hereafter TOTO), NGK INSULATORS, LTD. (President: Taku Oshima, hereafter NGK INSULATORS), NGK SPARK PLUG CO., LTD. (President: Takeshi Kawai, hereafter NGK SPARK PLUG)) determined the outline of the joint venture after four companies jointly concluded on a memorandum of understanding regarding the establishment of a joint venture (JV) for Solid Oxide Fuel Cell (SOFC) in March 4th, 2019 and agreed to make a concrete plan for the JV establishment.

SOFC, which each company possesses its technology, is expected to realize a high-efficiency power generation system even at small scale. Moreover, it is considered as one of measures to solve energy and environmental problems in various fields such as home use, business and industrial use and so on.

Development with high technical difficulty is essential for SOFC because it is mainly made of ceramics as the core material of power generation and operating in a high temperature reactive atmosphere. The main issues for commercialization and practical application of SOFC are low cost and high durability; however, research and development of lifetime evaluation and its corresponding technologies takes a long time to be realized. Under such circumstances, each company will bring together the SOFC-related technologies and know-how that it has cultivated so far, and aim to realize commercialization as soon as possible by integrating their management resources.

Therefore, four companies in the Morimura Group will work together to maximize the JV's corporate value in order to increase the profitability of the JV.

□ Outline of the JV Company

(1) Name	MORIMURA SOFC TECHNOLOGY CO., LTD.
(2) Location	2808, Iwasaki, Komaki, Aichi
(3) Representative Director and his Name	Yoshikuni Sato
(4) Business	Business related to research, development, manufacture and sale of cells, stacks, modules and systems for Solid Oxide Fuel Cells (Excluding materials and parts sales business) for home use, commercial use and industrial use (excluding automotive use)
(5) Capital	100 million yen
(6) Established	August 9 <sup>th</sup> , 2019
(7) The scheduled date of the commencement of operation	December 3 <sup>rd</sup> , 2019 (scheduled)
(8) Fiscal year-end	March 31
(9) Net assets	4,914 million yen
(10) Total assets	4,914 million yen
(11) Investment Ratio	NORITAKE CO., LIMITED : 5% TOTO LTD. : 20% NGK INSULATORS, LTD. : 8% NGK SPARK PLUG CO., LTD. : 67%

Note: TOTO and NGK SPARK PLUG will divide a part of the fuel cell related and carry out an absorption-type split that will be transferred to a joint venture. NORITAKE and NGK INSULATORS will invest cash in the joint venture.

For details on the absorption-type split of TOTO and NGK SPARK PLUG, please refer to “Notice Concerning “Establishment of Joint Venture Company between Four Companies in the Morimura Group” and “Conclusion of the Absorption-type Company Split Agreement” announced on September 27<sup>th</sup> by TOTO and NGK SPARK PLUG.

□ About History of the Morimura Group

NORITAKE, TOTO, NGK INSULATORS, and NGK SPARK PLUG, the companies represent Japan's ceramic industry, are members of Morimura group. Our root is the Morimura Gumi (currently Morimura Bros., Inc.), which was founded by Morimura Ichizaemon the sixth and his younger brother Toyo.

1876	Ichizaemon Morimura the sixth and his brother Toyo founded the Morimura Gumi (currently Morimura Bros., Inc.)
1904	Foundation of Nippon Toki Gomei Kaisha (currently NORITAKE CO., LIMITED)
1917	The sanitary ware division of Nippon Toki Gomei Kaisha was spun off to establish Toyo Toki Co., Ltd. (currently TOTO LTD.)
1919	The insulator department of Nippon Toki Gomei Kaisha was spun off to establish NGK INSULATORS, LTD.
1936	The spark plug division of NGK INSULATORS, LTD. was spun off to establish NGK SPARK PLUG CO., LTD.