April 23, 2024

Notice of Transition of Development of Manufacturing Technology for High-Quality 8-Inch SiC Single Crystals/Wafers to NEDO Green Innovation Fund Subsidized Project

Since April 2022, Central Glass Co., Ltd. ("the Company") has been researching and developing SiC[*1] wafers using the solution growth method[*2] in its contract project Development of Manufacturing Technology for High-Quality 8-Inch SiC Single Crystals/Wafers ("the Project") under the New Energy and Industrial Technology Development Organization (NEDO). NEDO's selection of the Project as part of its Green Innovation Fund Project for the Construction of Next Generation Digital Infrastructure, under the category Development of Wafer Technology for Next-Generation Power Semiconductors.

Today, the Company is pleased to announce that, based on the results of a stage-gate review that determines whether a project should continue, NEDO has decided the Project will transition to a grant-funded project from April 2024.

This transition to a Green Innovation Fund Subsidized Project is expected to accelerate the Company's research and development of high-quality, cost-competitive 8-inch SiC single-crystal wafers using the solution growth method, which will aid the Company in the mass production and practical implementation of world-class high-quality 8-inch SiC wafers, thereby contributing to building a carbon-neutral society.

< Central Glass Co., Ltd.'s NEDO Green Innovation Fund Project >

・ Project name:

(Main Topic) Green Innovation Fund Project / Construction of Next Generation Digital Infrastructure

(Topic) Development of Wafer Technology for Next-Generation Power Semiconductors

(Subtopic) Development of Manufacturing Technology for High-Quality 8-Inch SiC Single Crystals/Wafers

・ Project implementer: Central Glass Co., Ltd.

・ Project period: FY2022 to FY2029 (maximum 8 years)

*1 SiC (silicon carbide): SiC exhibits higher dielectric breakdown field strength, lower switching loss, and higher thermal conductivity than that of the current mainstream semiconductor material, silicon (Si), thereby making it a next-generation power semiconductor material that can operate at high temperatures and reduce power loss.

*2 Solution growth method: This method crystallizes SiC crystals in a raw material solution containing silicon and carbon. This method achieves fewer defects, larger diameters, and longer lengths than those of the conventionally used sublimation method for manufacturing SiC single crystals, thereby demonstrating its potential for cost reduction in the future.

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