

Toshiba International Corporation / The Ohio State University

Project Title: Development, Demonstration and Commercialization of SiC Based 1MW Medium Voltage Motor Drive System

Objectives: Develop and commercialize SiC based 1MW Medium Voltage Motor Drive System

Major Milestones: Industry-level 1MW SiC MVD system

Significant Equipment Acquisition: NA

Deliverables: Industry-level 1MW SiC MVD system



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WBG Technology Impact

1. Smaller footprint and lighter weight due to less power loss of SiC devices
2. Higher reliability of medium voltage drive system from much simpler cooling system due to SiC devices.
3. Enable high-speed motor operation due to fast switching of SiC devices

Additional impacts

1. Manufacture of SiC based Medium Voltage Drives in Houston, TX.
2. Large volume usage of SiC devices