Examples of Initiatives to Realize a Decarbonized Society

Example 1

Increased contribution to reducing the CO₂ emission factor of electric power
- Contributing to a wider introduction of renewable energy -

Renewable energy sources

- Wind power
- Solar power
- Offshore wind power generator
- Green ammonia manufacturing

Initiatives in new areas
- High-volume/direct-current (HVDC) transmission of renewable energy
- Grid stabilization to expand renewable energy use (FACTS/GFC)
- Distributed power source/storage cell control (VPP, DERMS, EMS, etc.)

Substations

Smart cities and microgrids that realize carbon neutrality

Example 2

Reduction of emissions by products

- Reduction in power consumption of new products
- Improvement of more than 1% from previous models
- Provision of energy-saving & energy-creating solutions

Air conditioning systems
- Electric products (motors/inverters)
- e-Factory solutions
- ZEB (net Zero Energy Building)

Example 3

Reduction of emissions in production

- Target of investing 0.15% of our revenue in decarbonization
- Increasing the utilization rate of renewable energy

Example 4

Improvement of efficiency and spread of power semiconductor devices, etc.

SiC power devices

DERMS: Distributed Energy Resource Management System  EMS: Energy Management System
FACTS: Flexible AC Transmission Systems  GFC: Grid Forming Control
GWP: Global Warming Potential  HVDC: High Voltage Direct Current  SiC: Silicon Carbide  VPP: Virtual Power Plant

* Commercialization yet to be decided