

**Session Title: Nuclear Power as a Power Source for Decarbonization**

**Name: Kanzaki Yurugi**

**Position: Director, Nuclear Systems Engineering Department, Mitsubishi Heavy Industries, Ltd.**

**Abstract title: Contribution to carbon neutrality with nuclear technology**

In Japan, nuclear energy, an important base load power source as it is carbon-free, large-scale, stable power, and reinforces energy security, is necessary to achieve carbon neutrality by 2050. In the short-term, Mitsubishi Heavy Industries (MHI) is focusing on the restart of existing plants, and also working on further enhancement of nuclear safety and reliability for the long term operation. Furthermore, MHI is conducting the development study on next-generation PWR with world-highest-level safety using innovative technologies toward commercial operation in mid 2030's.

For the mid- to long-term use to satisfy diversified social needs under carbon neutrality, MHI conducts research and development of new reactor types, such as integrated small reactors suitable for small-scale power grid area and high temperature gas-cooled reactors enabling stable and large amounts of hydrogen production.