

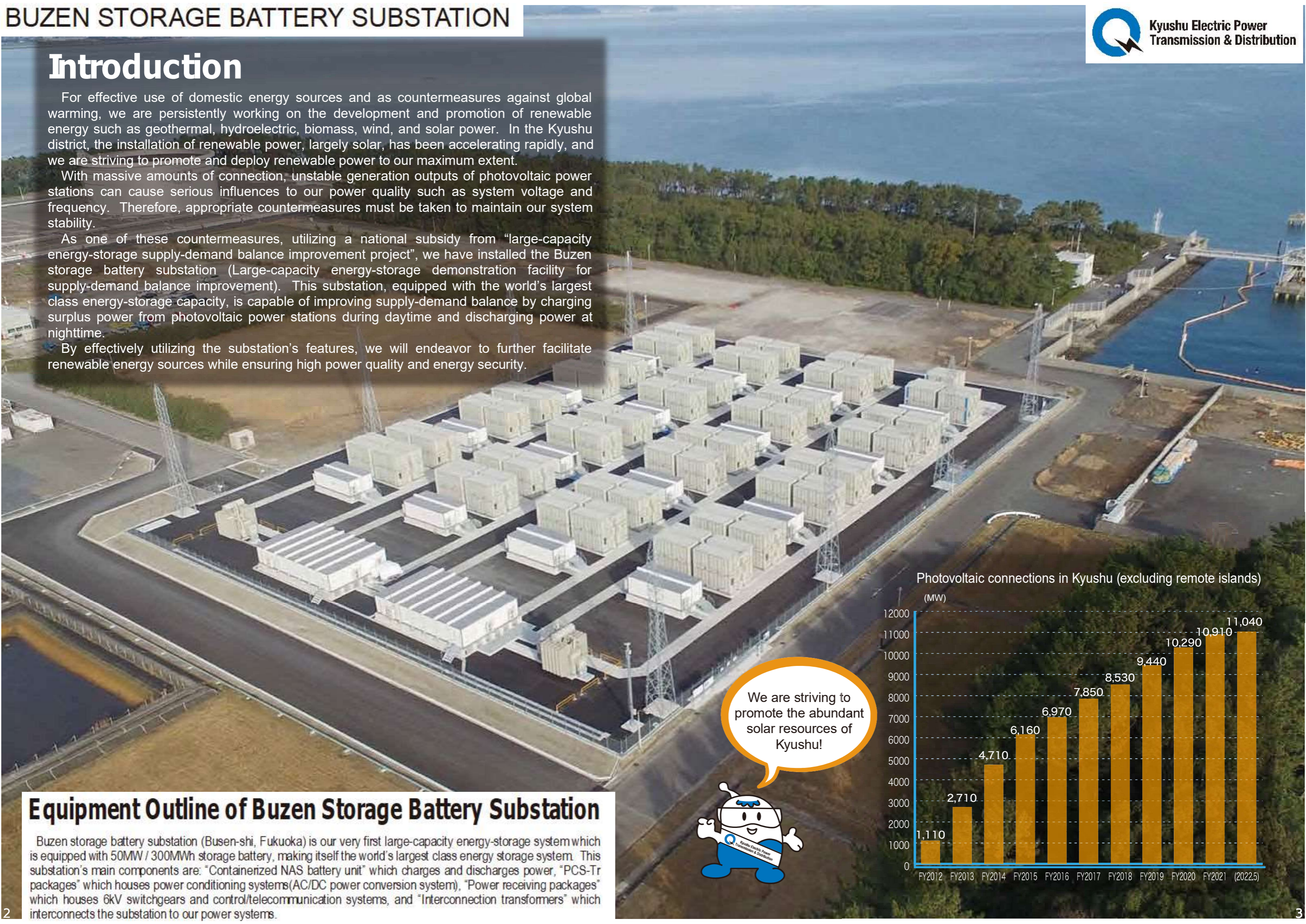
Introduction

For effective use of domestic energy sources and as countermeasures against global warming, we are persistently working on the development and promotion of renewable energy such as geothermal, hydroelectric, biomass, wind, and solar power. In the Kyushu district, the installation of renewable power, largely solar, has been accelerating rapidly, and we are striving to promote and deploy renewable power to our maximum extent.

With massive amounts of connection, unstable generation outputs of photovoltaic power stations can cause serious influences to our power quality such as system voltage and frequency. Therefore, appropriate countermeasures must be taken to maintain our system stability.

As one of these countermeasures, utilizing a national subsidy from “large-capacity energy-storage supply-demand balance improvement project”, we have installed the Buzen storage battery substation (Large-capacity energy-storage demonstration facility for supply-demand balance improvement). This substation, equipped with the world’s largest class energy-storage capacity, is capable of improving supply-demand balance by charging surplus power from photovoltaic power stations during daytime and discharging power at nighttime.

By effectively utilizing the substation’s features, we will endeavor to further facilitate renewable energy sources while ensuring high power quality and energy security.



We are striving to promote the abundant solar resources of Kyushu!



Equipment Outline of Buzen Storage Battery Substation

Buzen storage battery substation (Busen-shi, Fukuoka) is our very first large-capacity energy-storage system which is equipped with 50MW / 300MWh storage battery, making itself the world’s largest class energy storage system. This substation’s main components are: “Containerized NAS battery unit” which charges and discharges power, “PCS-Tr packages” which houses power conditioning systems(AC/DC power conversion system), “Power receiving packages” which houses 6kV switchgears and control/telecommunication systems, and “Interconnection transformers” which interconnects the substation to our power systems.

Photovoltaic connections in Kyushu (excluding remote islands)

