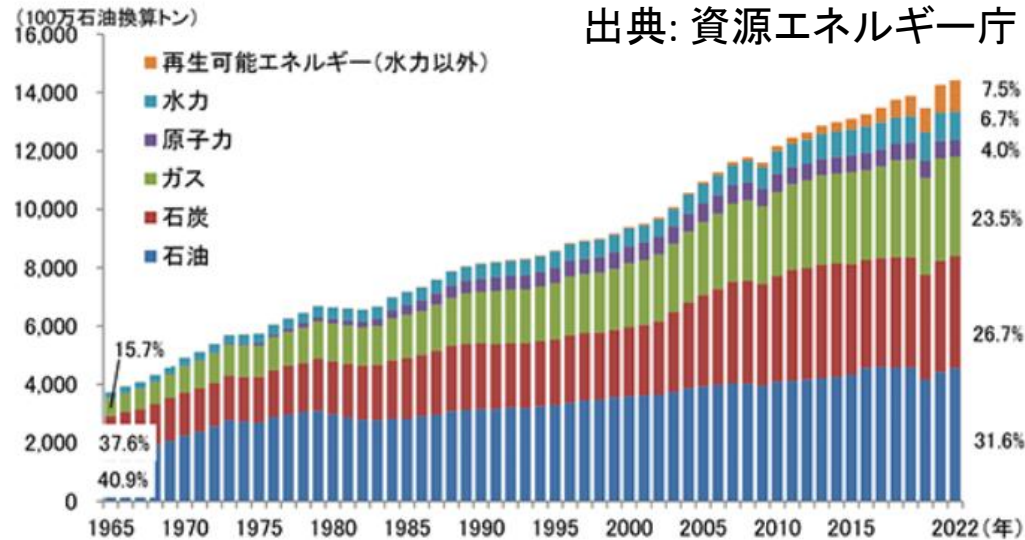


Background



Global Energy Consumption
Fossil Fuels > Renewable Energy

Fossil Fuels

Merit

- High energy density

Demerit

- Greenhouse gas emissions
- Air Pollution
- Resource depletion

Alternative Energy : Biomass

Merit

- Carbon neutral
- Renewable energy

Demerit

- Low energy density
- High cost
- Depends on the season

Conversion to gas fuel

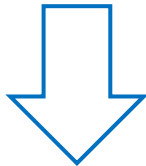
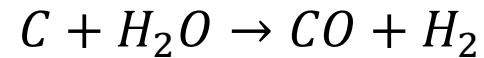
Gasification technology

Purpose

- Biomass gasification

Technology to generate combustible gas by reacting biomass char with a gas agent in a high-temperature (800-900°C) field

Water - gasification reaction



Action item

Char gasification experiment using a fluidized bed

Elucidation of gasification behavior of biomass char