

Striving for Carbon Neutrality in Wastewater Treatment Plants

Miyazaki City, Miyazaki Prefecture



Situation (background, aims, etc.)

One pressing challenge Miyazaki City must address to achieve the 'Zero Carbon City Miyazaki' goal is decarbonising its sewerage operations, which account for approximately 30% of its total power consumption. The city is focusing on the Oyodo Treatment Plant, which is registered as a model project by the national government. They aim to significantly reduce the plant's greenhouse gas emissions and achieve a resource-circulating society through 'energy saving' (e.g. upgrading ageing equipment to high-efficiency ones) and 'energy creation' (e.g. solar power generation and converting wastewater sludge into resources).

Details (project outline, etc.)

The project will implement the following four initiatives:

- 1) Introduction of energy-saving technology
- 2) Receiving and utilising local biomass
- 3) Conversion of wastewater sludge into fertiliser and fuel
- 4) Adoption of renewable energy

Results (features and innovations, future developments, etc.)

The project aims to make the Oyodo Treatment Plant energy-positive, meaning it creates more energy than it consumes, and achieve a 100% biomass recycling rate. This advanced green transformation (GX) initiative is expected to contribute to decarbonisation on a national scale by presenting a carbon neutral model treatment plant that can be rolled out nationwide.
