



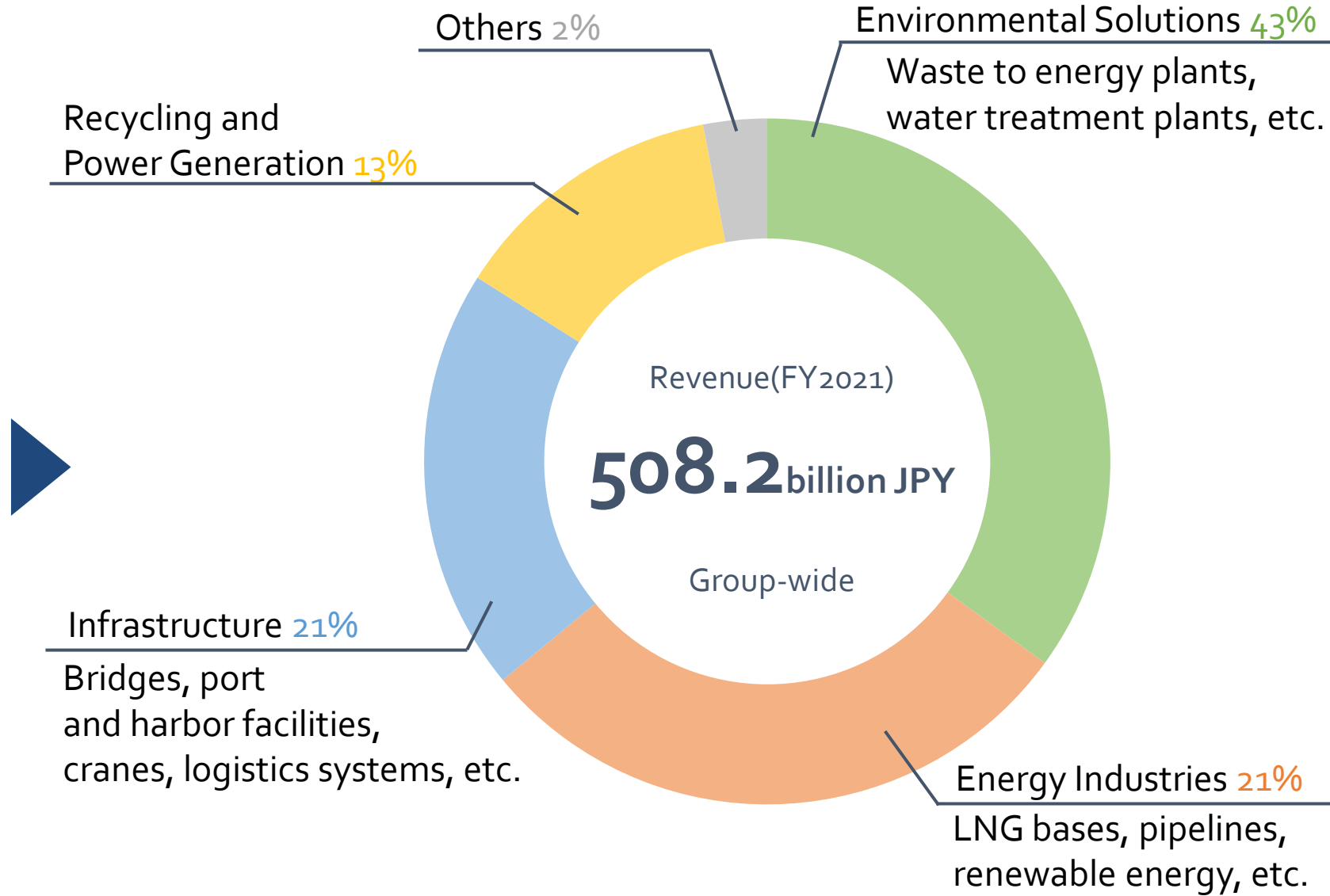
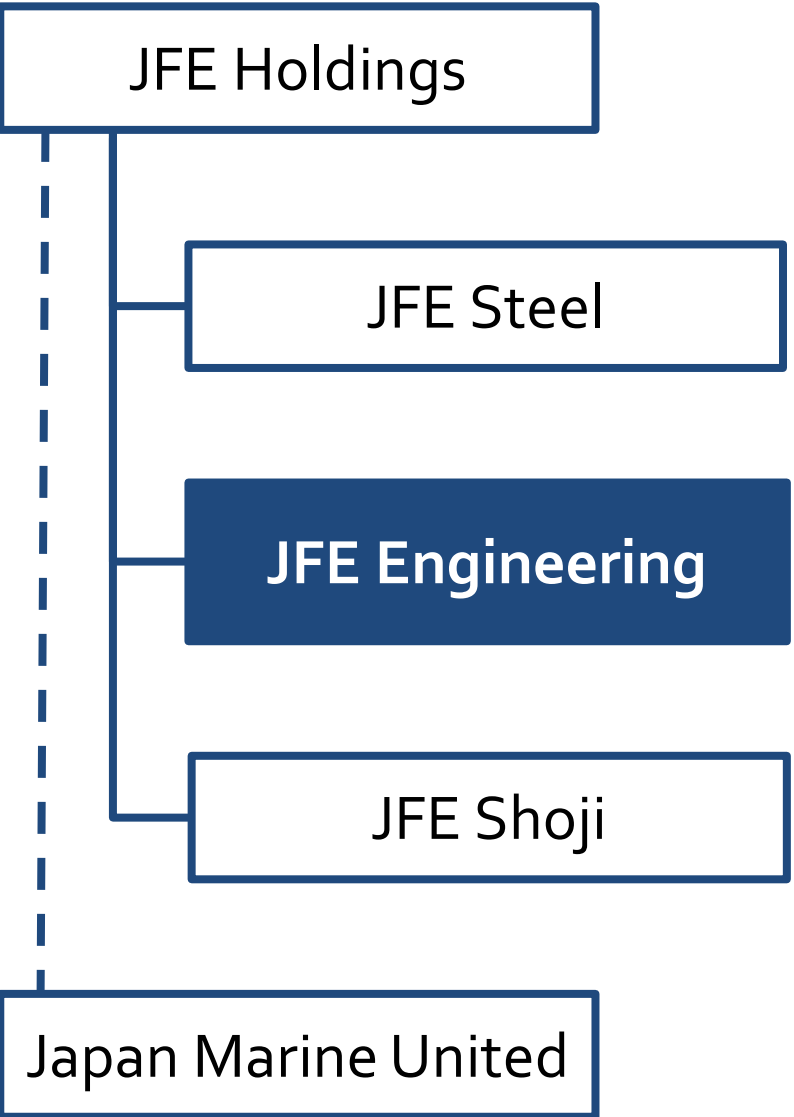
28 July, 2022

**Just For the Earth** - decarbonization through our waste-to-resource solutions

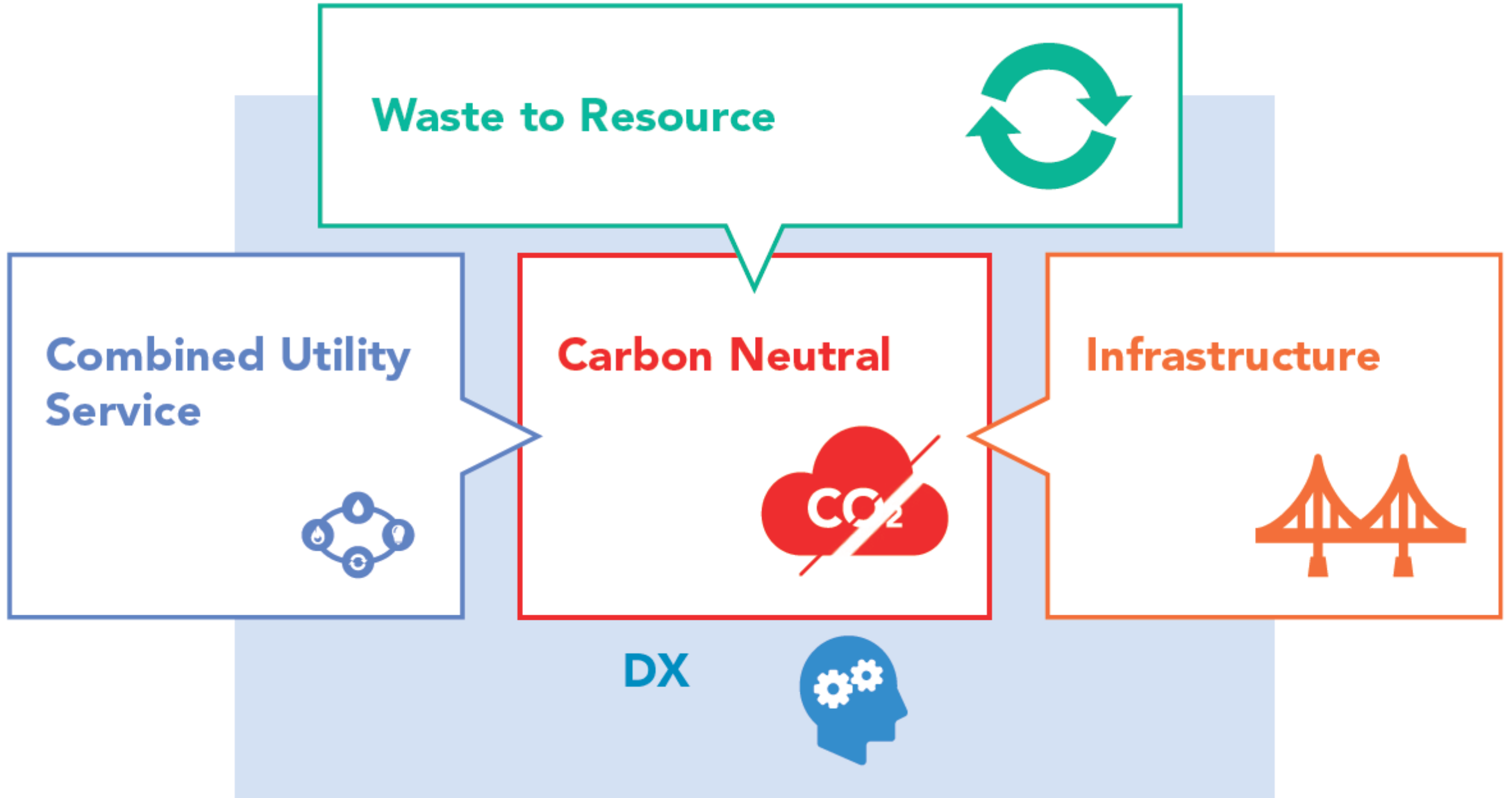


**JFE Engineering Corporation**

# JFE for sustainable cities and communities



# Five Initiatives for 2030 - Focusing on the Circular Economy





Kenya, Decarbonization  
[Project]: Olkaria II Geothermal Power Project OG105 Steam Field Development  
[Place] Naivasha, Olkaria  
[Completion] 2003

**CH4 Emission**

**Pest, Odor, Fire, Water &  
Air Contamination**

**Global Warming**

**Pollution**

**Hazardous situations  
for the communities  
and local economies**

**Land Availability**

**Difficult to secure new  
Landfill space**





Emission level is lower than environmental standard

Waste Heat Reuse for Local Community

Close to waste generator and short transportation distance



**JCM** THE JOINT CREDITING  
MECHANISM

## Waste to Energy Plant in Yangon City

[Expected GHG Emission Reductions] **4,067 tCO<sub>2</sub>/year (average)**

[Location] Shwe Pyi Thar Township, Yangon City

[Project participant (Myanmar)] Yangon City Development Committee

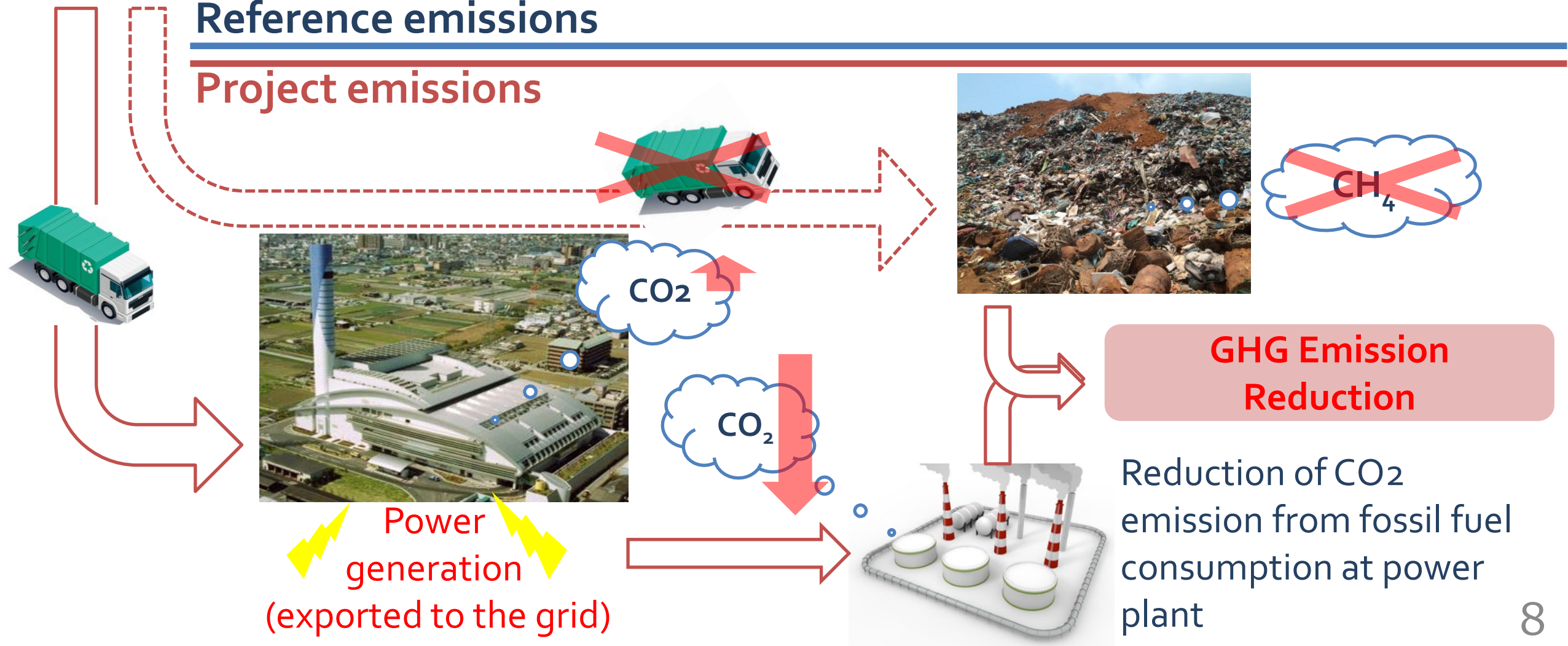
[Project participant (Japan)] JFE Engineering Corporation





**Reference emissions**

**Project emissions**





01 Jun. 2017 Starting date of project operation

16 Jan. 2020 Registration of the project

### Estimated emission reductions in each year

-1,933 (in 2017)

-1,853 (in 2018)

262 (in 2019)

1,833 (in 2020)

3,030 (in 2021)

3,970 (in 2022)

4,728 (in 2023)

5,359 (in 2024)

5,897 (in 2025)

6,367 (in 2026)

6,785 (in 2027)

7,163 (in 2028)

7,509 (in 2029)

7,829 (in 2030)

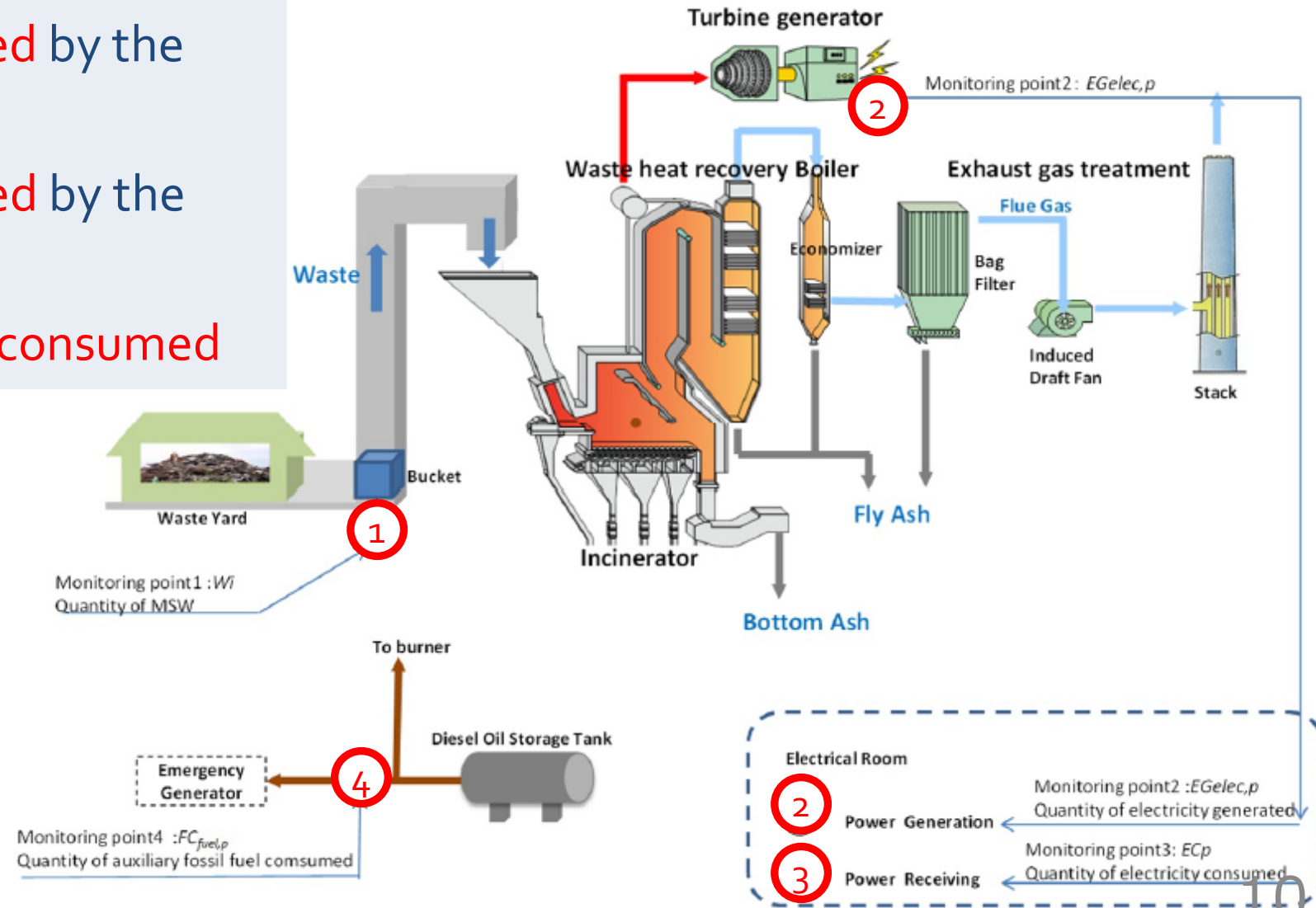
\* solid waste disposal site

Reference emissions	
Decomposition of waste at a SWDS*	CH <sub>4</sub>
Electricity generation	CO <sub>2</sub>
Project emissions	
Combustion of fossil carbon contained in waste	CO <sub>2</sub>
Incineration of waste	N <sub>2</sub> O
Electricity use by the project facility	CO <sub>2</sub>
Consumption of auxiliary fossil fuels needed to be added into incinerator	CO <sub>2</sub>

Expected operational lifetime of project: 15 years

# Monitoring parameters

- ① Quantity of **MSW** fed into incinerator (wet basis)
- ② Quantity of **electricity** generated by the project facility
- ③ Quantity of **electricity** consumed by the project facility
- ④ Quantity of auxiliary **fossil fuel** consumed



# Myanmar: Waste-to-Energy Project

## Project background information:

- Landfill capacity at the current treatment site is decreasing
- Negative impacts on environment (human health) due to poor waste management

## Project overview:

- Introduction of advanced solid waste treatment
- Expected GHG emissions reduction: 4,067 t-CO<sub>2</sub>eq/year (average)



		<p>Generating electricity from solid waste leads to reduce fossil fuel consumption and contributes to air pollution reduction. Treating solid waste can contribute to soil contamination reduction in the surrounding area. Therefore, the project reduces negative environmental impacts by improving waste management.</p>
		<p>JFE Engineering Corporation provides technical capacity training for local engineers and employees to operate the treatment plant.</p>
		<p>Engaging in advanced waste management and reducing hazards from solid waste can prevent ground water pollution. The project can reduce the volume of solid waste by around 90%.</p>
		<p>The project reduces GHG emissions by replacing electricity generated by fossil fuel and avoiding methane release from the solid waste. Over 60 % of generated electricity is used by the treatment plant itself, and the rest is sold to the grid system.</p>
		<p>Introducing high-efficiency technologies in solid waste treatment leads to enhance sustainable public infrastructure development. The plant treats about 60 tonnes of waste per day. It has a separate recycling process which collects recyclable materials such as bottles and plastics. These activities contribute to reducing the landfill waste. Strengthening this kind of technological upgrade would help Myanmar to move towards more sustainable production.</p>
		<p>Contributing to marine pollution reduction through appropriate solid waste management.</p>
		<p>Participating in JCM and collaborating with different stakeholders ensure the diffusion of low-carbon and decarbonisation technologies and improve the partnership between the government and private sector in both countries.</p>



*Selected as a JCM Model Projects in FY2021 (1st Selection)*



**Waste to Energy project in Bac Ninh Province**

[Expected GHG Emission Reductions] **41,805 tCO<sub>2</sub>/year (average)**

[Location] Bac Ninh province, Vietnam

[Project participant (Vietnam)] T&J Green Energy Company Limited

[Project participant (Japan)] JFE Engineering Corporation



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