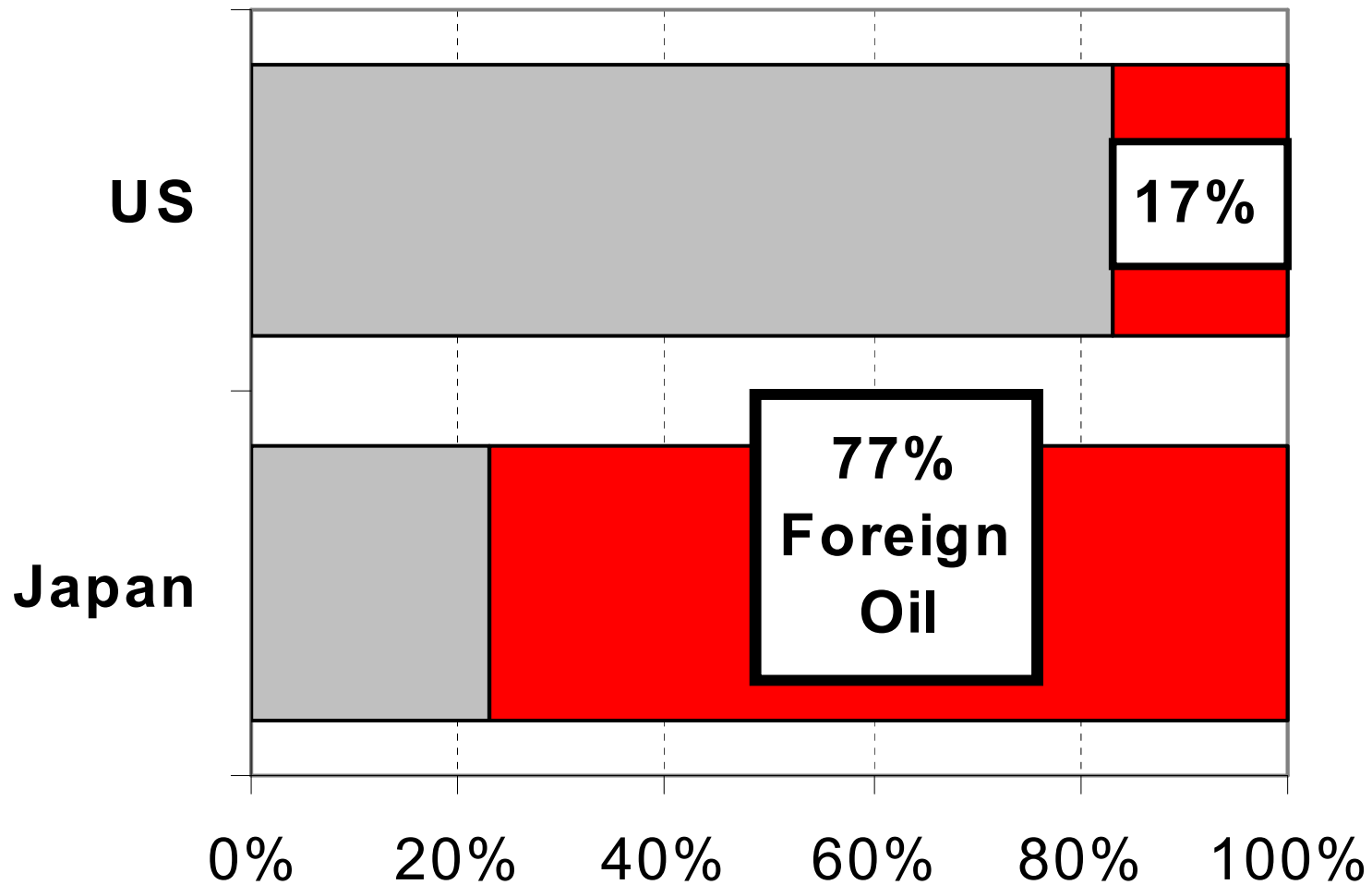




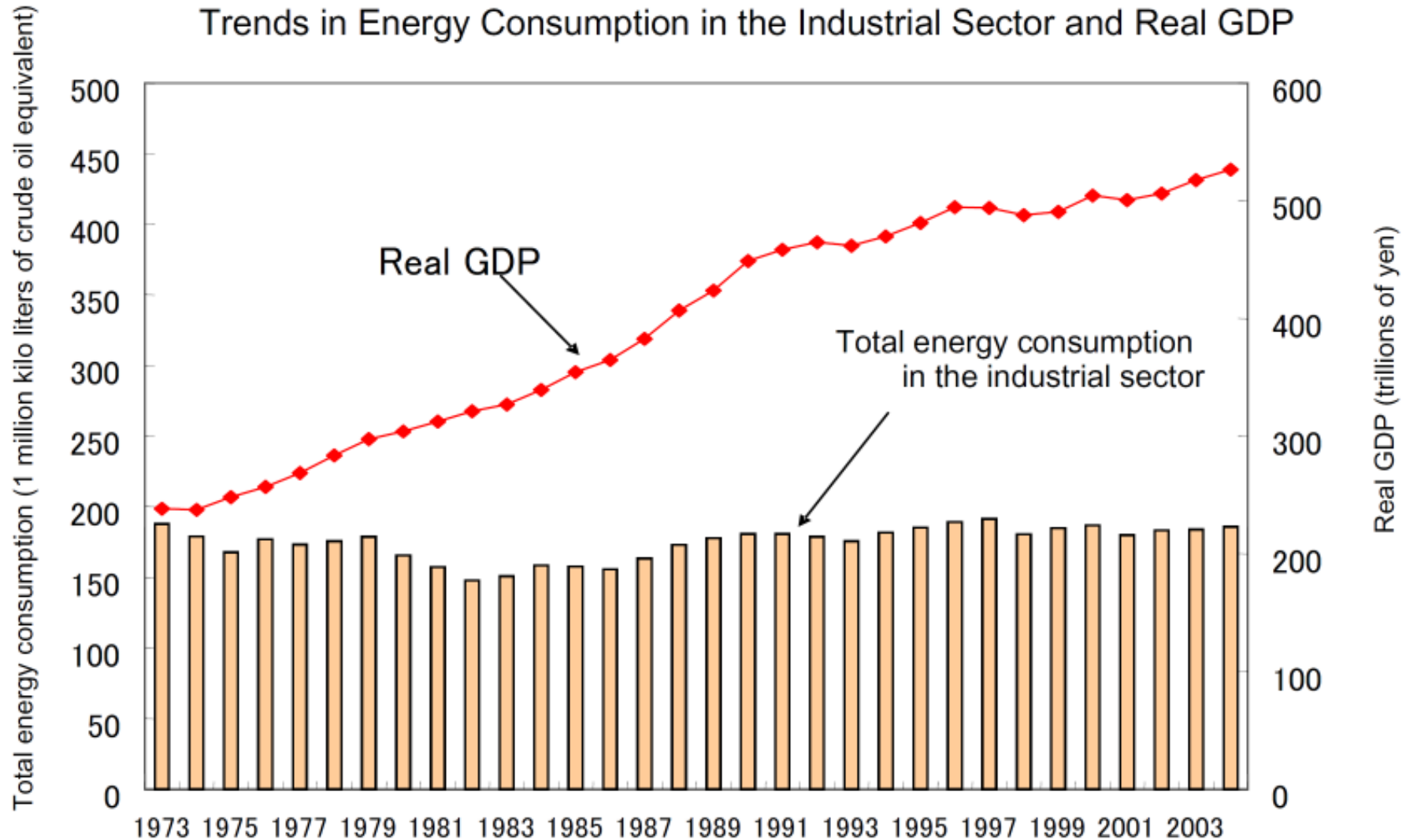
**Greening the World**  
**Japan's contribution**  
***"American Jewish Committee"***

**Junichi Ihara**  
**Consul General of Japan**

# 1973 Dependence on Imported Oil in Total Energy Mix



## Trends in Energy Consumption in the Industrial Sector and Real GDP



Source: General Energy Statistics (Agency for Natural Resources and Energy of the government of Japan)

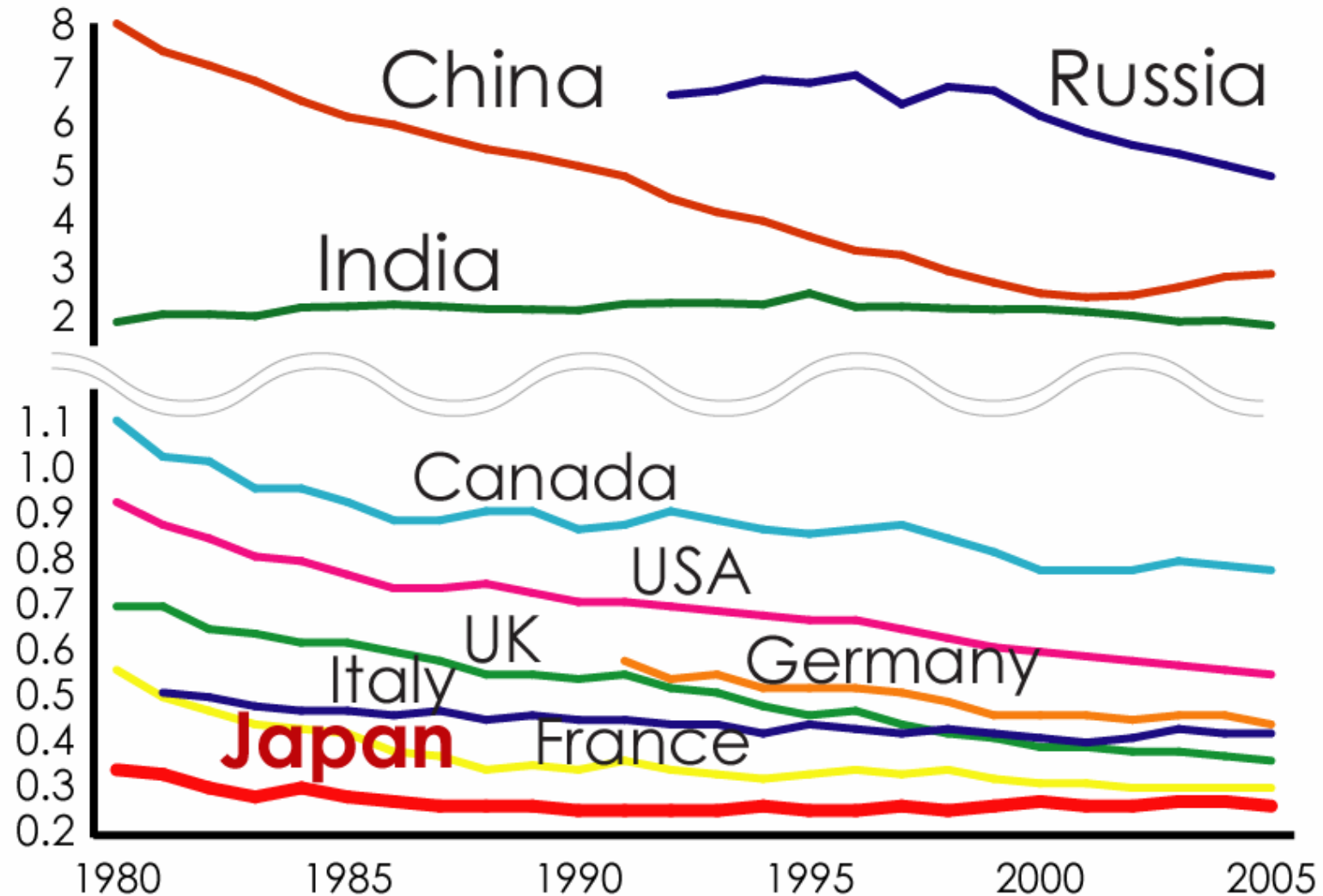
System of National Accounts (Cabinet Office of the government of Japan)

# World Carbon Intensity

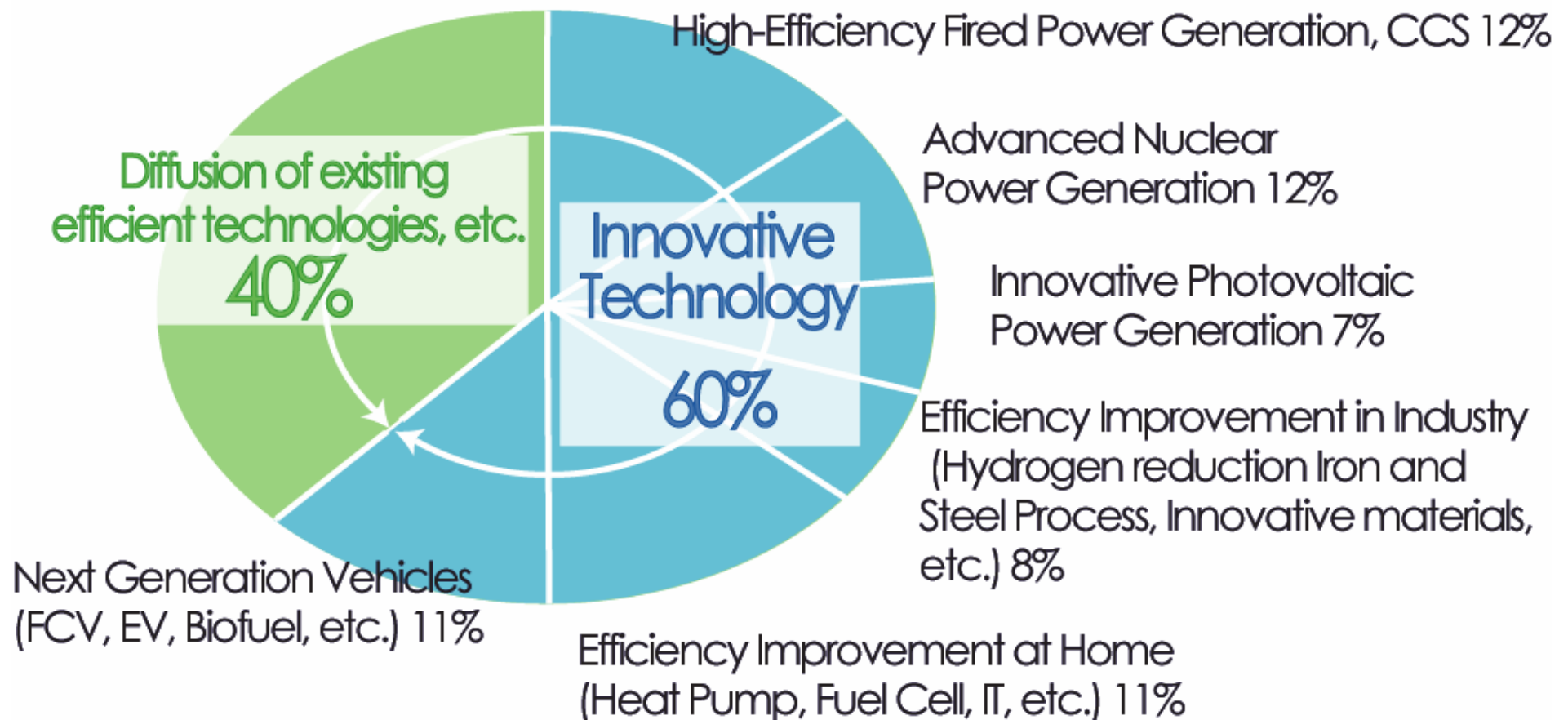
World Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels per Thousand Dollars of Gross Domestic Product Using Market Exchange Rates, 1980-2005

Metric Tons of Carbon Dioxide per Thousand 2000 U.S. Dollars

Source: US DOE Energy Information Administration

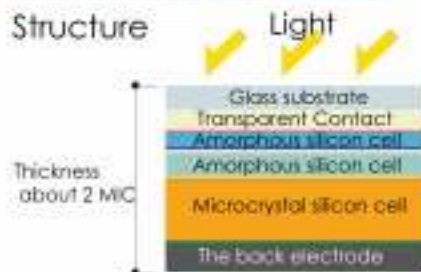


# Contribution of Innovative Energy Technologies for the 50% Emission Reduction in 2050

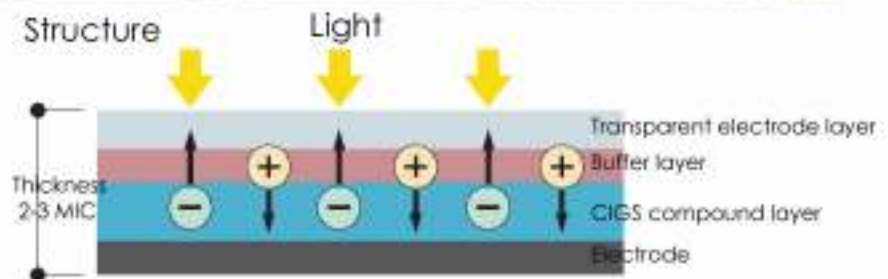


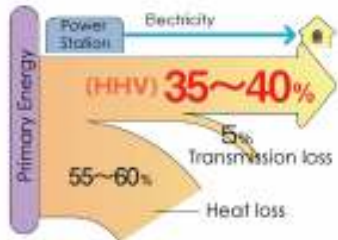
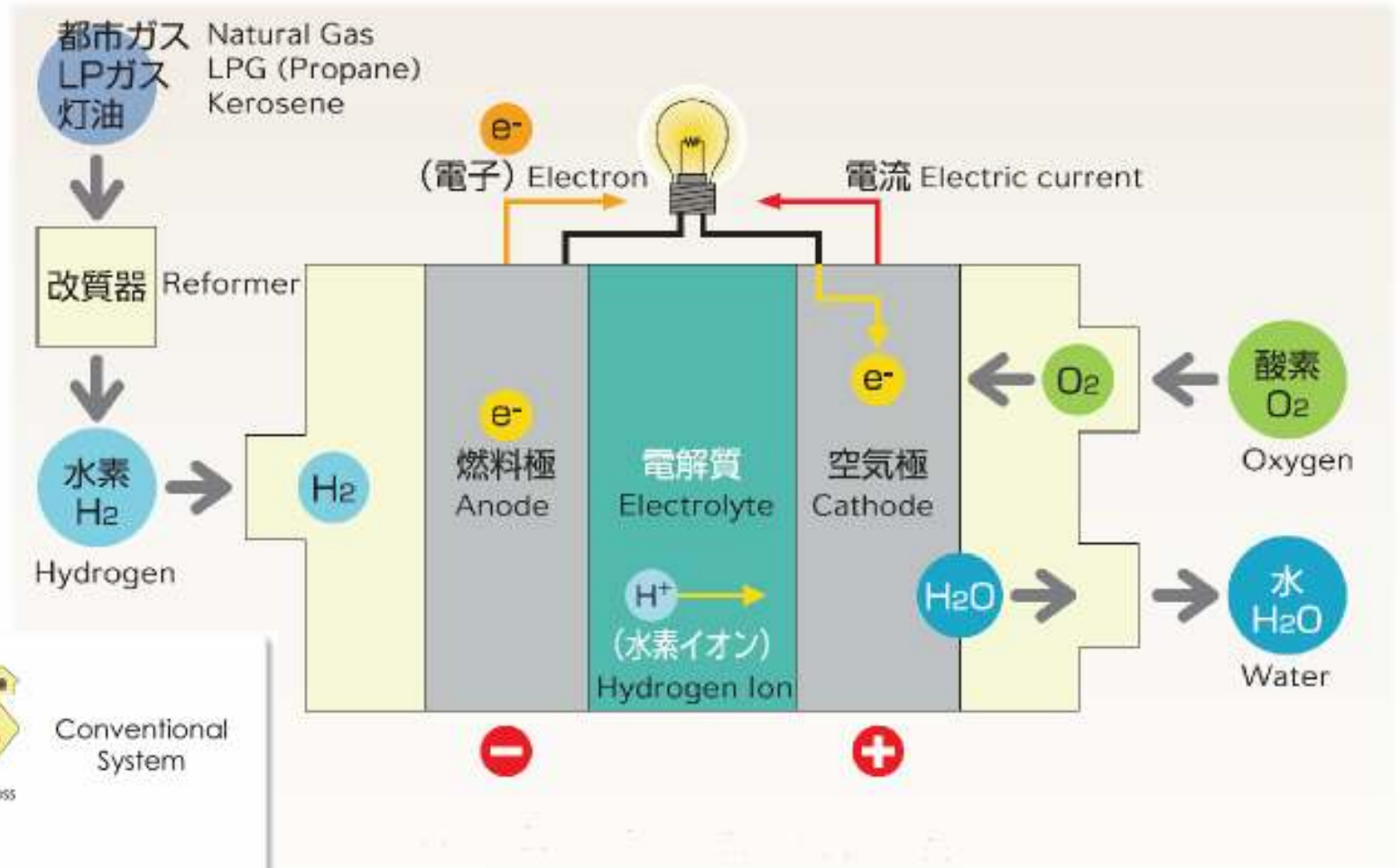
# Photovoltaic

## Thin-Film photovoltaic

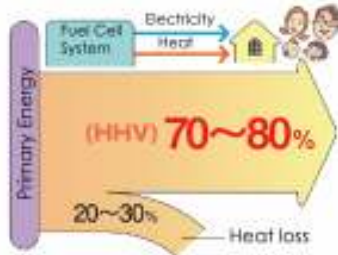


## CIGS photovoltaic





Conventional System



Residential Fuel Cell System

Energy conservation and CO<sub>2</sub> reduction features verified

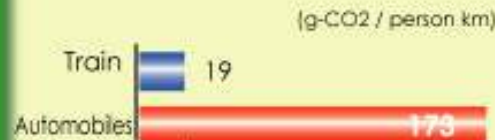
# Residential Fuel Cell

# Railway

## High speed rail

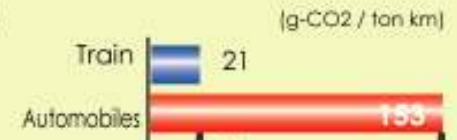
### Comparison of CO2 emissions

CO2 emissions when transporting  
**1 passenger for 1 km**



Trains emit only  
1/9 of the CO2 of  
automobiles

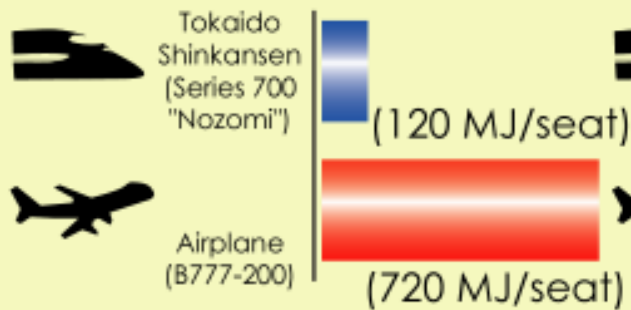
CO2 emissions when transporting  
**1ton of cargo for 1 km**



Trains emit only  
1/7 of the CO2 of  
trucks

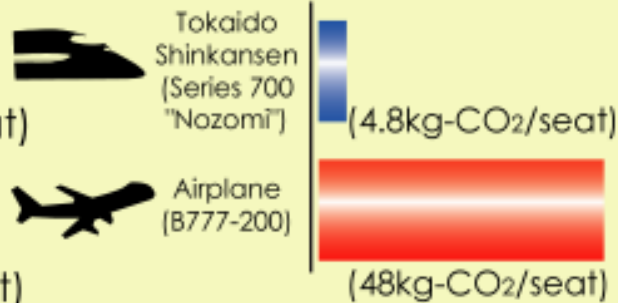
### Environmental Comparison with Airplanes

Energy consumption per seat



Approx. 1/6 of  
airplanes

CO2 emissions per seat

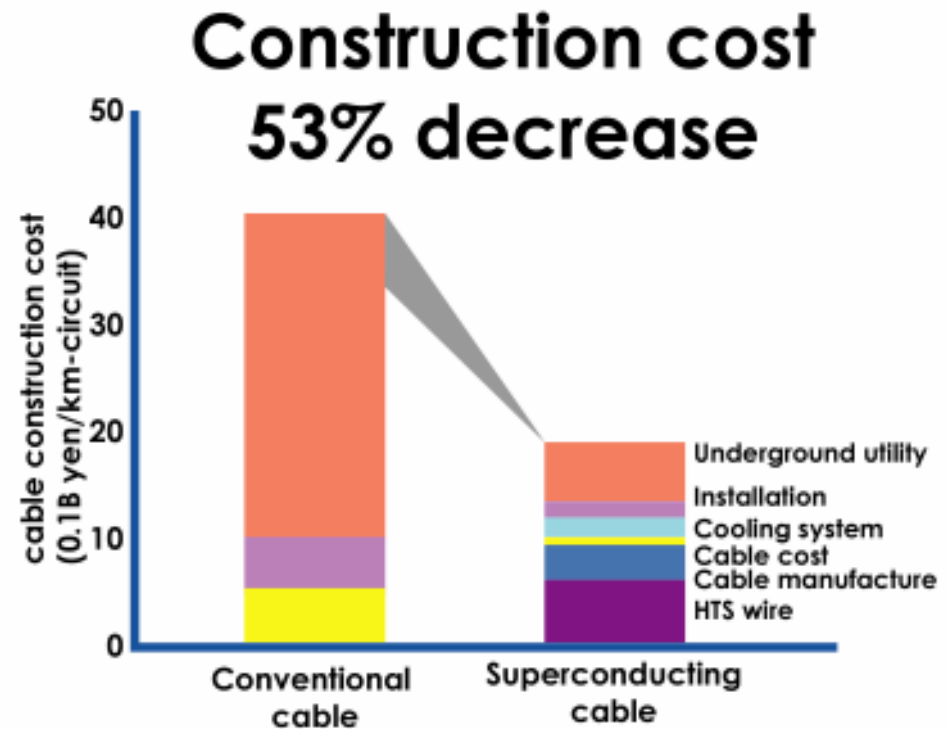
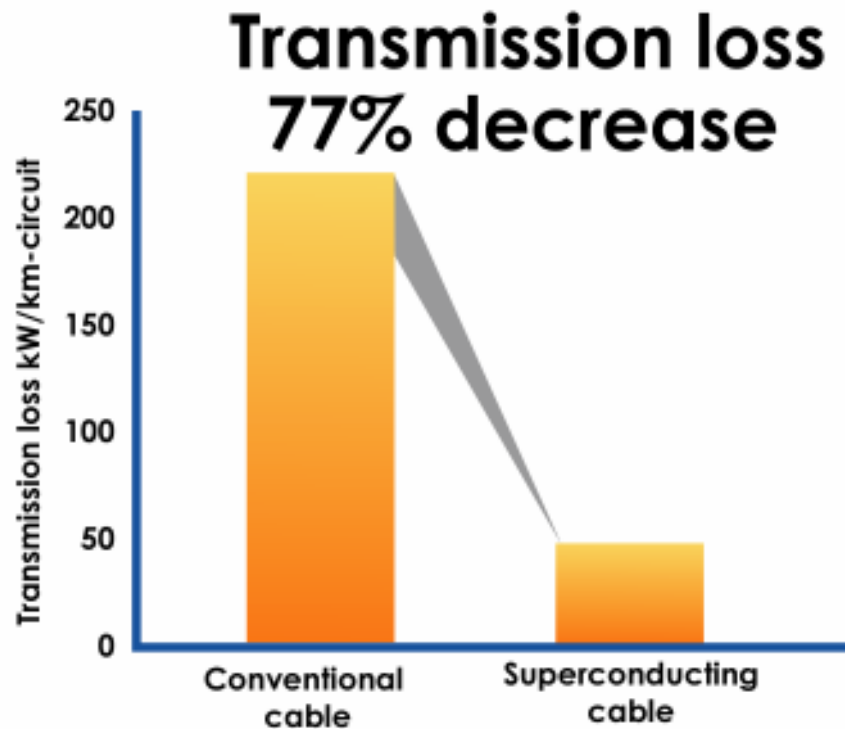


Approx. 1/10 of  
airplanes

Source: Central Japan Railway Company

# Superconducting transmission cable

## An advantage of superconducting transmission cable



Line power transmission capacity 500MVA/circuit

# High-efficiency LED lamp

## Comparison of CO<sub>2</sub> emissions

