

# CO2 Saved

## How We Calculated It?

Our calculation assumes both upstream and downstream diverted emissions, where 1 item shared counts for 1 item saved and 1 item not being produced and we are not discounting for leakage or rebound effects.

Based on data from a Temasek x Deloitte x A\*STAR study “Environmental Impact of Key Food Items in Singapore”, 1kg of food consumption in Singapore results in GHG emissions of 2.5995kg of CO<sub>2</sub>. Hence, 1kg of food diverted results in  $2 \times 2.5995 = 5.1989$ kg of CO<sub>2</sub> saved

# Electricity Saved

## How We Calculated It?

Singapore’s latest average Operating Margin (OM) Grid Emission Factor (GEF), which measures the average CO<sub>2</sub> emissions emitted per unit of net electricity generation, was 0.4057kgCo<sub>2</sub>/kWh in 2021. Thus, electricity saved is the amount of CO<sub>2</sub> saved/0.4057.

# Water Saved

## How We Calculated It?

Our calculation assumes both upstream and downstream water saved, where 1 item shared counts for 1 item saved and 1 item not being produced and we are not discounting for leakage or rebound effects.

Based on data from a [Temasek x Deloitte x A\\*STAR study](#), “Environmental Impact of Key Food Items in Singapore”, 1kg of food produced need 368 litres of water on average. Hence, 1kg of food diverted results in  $2 \times 368$  or 736 litres of water saved.

# Equivalent of Tree Planted

## How We Calculated It?

The CO<sub>2</sub> balance of trees varies greatly depending on the type of tree, location, season and periods with the same climate or weather. There have been numerous scientific studies on how CO<sub>2</sub> offsetting can be determined.

A rate of 24 kg CO<sub>2</sub>/tree is assumed, based on [several scientific studies](#). Thus, the equivalent trees planted is the amount of CO<sub>2</sub> saved divided by 24.

# Car KM Off The Road Saved

## How We Calculated It?

The average petrol car produced 165 grams of CO<sub>2</sub>e per km in 2024, while diesel cars averaged roughly 170 grams of CO<sub>2</sub>e per km. 1kg CO<sub>2</sub> is generated by 6km on the road, based on the average data on this study: [Carbon footprint of travel per kilometer in the UK 2024, by transportation mode.](#)

Thus, the average car km off the road is the amount of CO<sub>2</sub> saved\*6km

# Natural Gas Saved

## How We Calculated It?

Burning natural gas produces [0.185 kg CO<sub>2</sub>/kWh](#) of natural gas. Thus, natural gas saved is the amount of CO<sub>2</sub> saved/0.185.