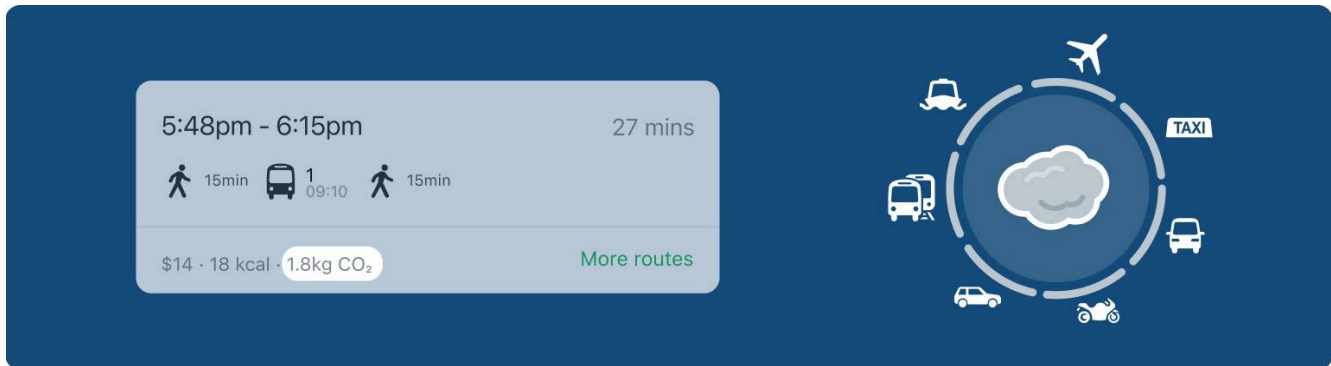# SKEDG◌

How we calculate carbon emissions

The carbon cost is measured in kg of CO_2 emissions. The carbon emissions for a trip are the sum of the emissions of each segment, and are reported per passenger kilometre.

Per-vehicle emissions

Car*
171 gram/km

Motorbike*
111.38 gram/km[1]

Taxi / TNC**
257.25 gram/km

Van / shuttle bus***
49.6 gram/km[2]

Per-passenger emissions:

Commuter train
41 gram/km[1]

Bus
117.74 gram/km[1]

Light rail / tram
28.61 gram/km[2]

Subway
28 gram/km[2]

Ferry
111.31 gram/km[1]

Intercity coach
27 gram/km

Intercity train
35 gram/km

Plane
244 gram/km[1]

Sources:

(1) EEA'16: https://www.eea.europa.eu/publications/term-report-2016/download

(2) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69314/pb13625-emission-factor-methodology-paper-110905.pdf

Notes:

(*) Motorbike and car emissions are customisable as input parameters to routing, so that API users can adjust them according to specific vehicle emissions and occupancy rates.

(**) When converting to per-passenger emissions, regular taxi trips assume a single passenger, while taxi pooling assumes two passengers, halving the emissions.

(***) When converting to per-passenger emissions, assumes average occupancy of 5 passengers per vehicle.