



Carbon balance

The life cycle assessment of lead/acid batteries was achieved in partnership with Acta Consult, in order to estimate the amount of CO₂ saved with our regeneration process.

20 starter batteries			
Battery specification			
Type		Starter	
Number of batteries		20	
Weight	360		kg
Voltage	12		V
Capacity	70		Ah

Distance between your battery and our regeneration center (km) : 50

PURCHASE OF A NEW BATTERY	CO ₂ equivalent (kg)
Recycling of the old battery	600
Transportation of the old battery for recycling	17
Production of a new battery	570
Transportation of the new battery	51
Total	1 238

REGENERATION BE ENERGY	CO ₂ equivalent (kg)
Transportation of the battery to the regeneration center	12
Regeneration	1
Transportation of the regenerated battery to customer	12
Total	25

CO₂ eq. emissions are 49 lower with the regeneration !

This correspond to

1 213 kg of CO₂ equivalent saved, which represents

- 1 Paris / New-York round-trip ticket! ²
- 8 Paris / Marseille round-trip by car ! ³
- 595 days of Netflix series ! ⁴
- 63 845 e-mails sent ! ⁵
- 619 m³ of CO₂ ⁶





Calculation details

Emission intensity	CO ₂ equivalent (kg) / tonne
Battery materials	
Steel ¹	2211
Sulfuric acid ¹	148
Copper ¹	1445
Water ¹	0,000168
Glass fiber ¹	2,13
Plastic ¹	2383
Lead ¹	2090

Transportation	
Truck (26 tonne) - Diesel (7 % biodiesel) ¹	0,124 kg CO ₂ eq. per tonne / km
Semi-trailer truck - Diesel (7 % biodiesel) ¹	0,071 kg CO ₂ eq. per tonne / km
LCV - Diesel (7 % biodiesel) ¹	0,682 kg CO ₂ eq. per tonne / km

Regeneration	
Average electricity 2018 ¹	0,0571 / kWh

1	Ademe.fr
2	523 kg CO ₂ equivalent for a Paris/New-York round-trip, www.ecologie.gouv.fr/politiques/aviation-civile
3	For a vehicle emitting 100g CO ₂ per km
4	www.carbonbrief.org
5	For a 1 Mo e-mail stored during 1 year, Ademe.fr
6	1 tonne of CO ₂ = 510 m ³ of CO ₂

CO₂ equivalent : For any amount of any gas, it is the amount of CO₂ which would warm the earth as much as that amount of that gas. Thus, it provides a common scale for measuring the climate effects of different gases.



