Carbon balance

The life cycle assessment of lead/acid batteries was achieved in partnership with Acta Consult, in order to estimate the amount of CO_2 saved with our regeneration process.

Traction battery		
Battery specification		
Type	Traction	
Number of batteries	1	
Weight	800	kg
Votage	48	V
Capacity	600	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	1 414
Transportation of the old battery for recycling	198
Production of a new battery	1 374
Transportation of the new battery	114
Total	**3 100**

REGENERATION BE ENERGY	CO_2 equivalent (kg)
Transportation of the battery to the regeneration center	27
Regeneration	3
Transportation of the regenerated battery to customer	27
Total	**57**

CO_2 eq. emissions are 54 lower with the regeneration !

This correspond to **3 042 kg of CO_2 equivalent saved, which represents**

3 Paris / New-York round-trip ticket! [2]
19 Paris / Marseille round-trip by car ! [3]
1491 days of Netflix series ! [4]
160 131 e-mails sent ! [5]
1 552 m^3 of CO_2 [6]

Une énergie de rentabilité Batterie Plus

BeEnergy REGEN SYSTEM

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 emmiting 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

CO_2 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.