

LANDING SYSTEMS

eLECTRIC TAXIING

ENVIRONMENTAL BENEFITS



The global aviation industry is firmly committed to reducing its environmental impact, for instance through programs such as CORSIA, or “Carbon Offsetting and Reduction Scheme for International Aviation”. Reducing aircraft emissions around airports, especially NOx and CO₂, will greatly improve local air quality and address our climate change concerns.

This leaflet shows how the Electric Taxiing system developed by Safran and Airbus reduces aircraft emissions at airports.

ePower

CRITERIA AIR POLLUTANTS



CARBON DIOXIDE (CO₂)

Each kilogram of jet fuel burned generates 3.16 kg of carbon dioxide (CO₂), a greenhouse gas.



NITROGEN OXIDES (NO_x)

NO_x emissions cause ground level smog.



OTHER POLLUTANTS

The two other main criteria pollutants for aviation are carbon monoxide (CO) and unburned hydrocarbons (UHC).

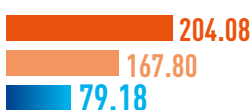


COMPLIANCE

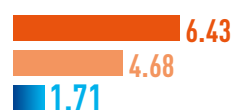
Airports in many regions of the world have to monitor and reduce emissions to comply with regional or national regulations.

TYPICAL EMISSIONS PROFILE (kg, for a 17-minute taxi-out)

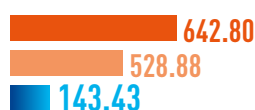
Fuel consumption



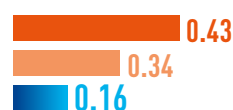
CO



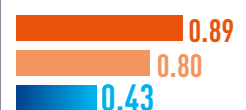
CO₂



UHC

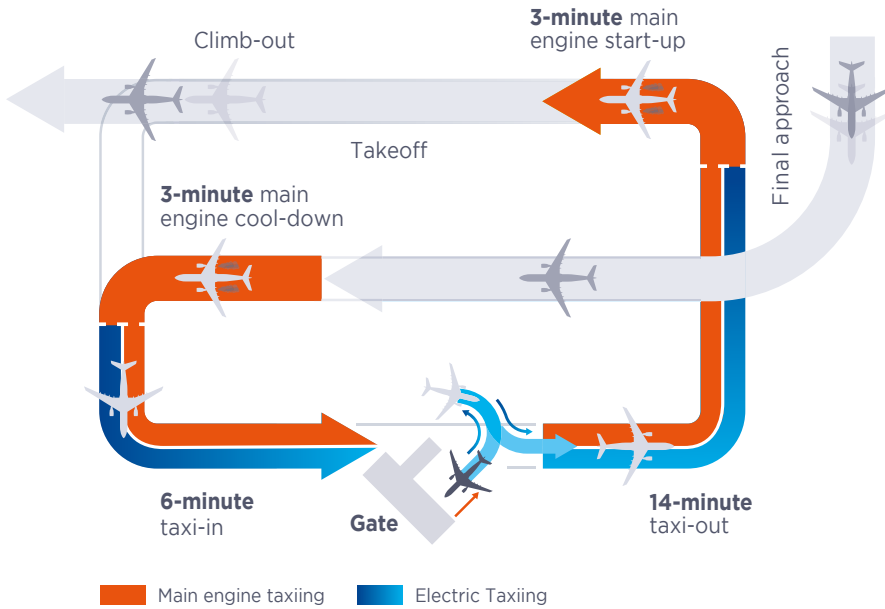


NO_x



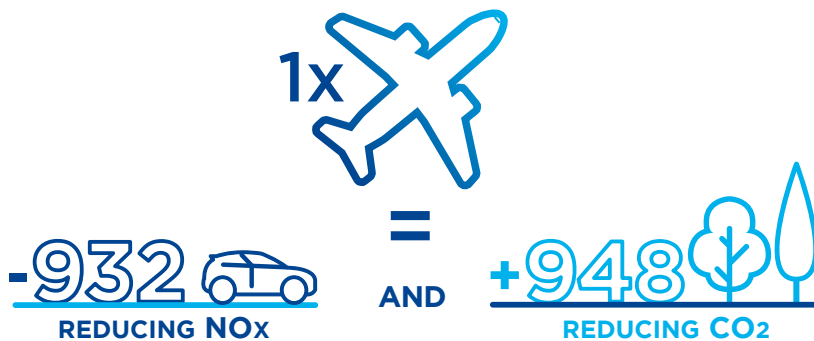
Figures = Totals (kg) ■ Dual-engine taxiing ■ Single-engine taxiing ■ Electric Taxiing system

MAIN ENGINE TAXIING VS. ELECTRIC TAXIING



WHAT THIS MEANS FOR THE ENVIRONMENT (based on 2,000 cycles/year)

Operating an Airbus A320 with the Electric Taxiing system at **American airports** for **a year offers benefits** that are equivalent to planting 948 trees, in terms of reducing CO₂, and eliminating 932 cars, in terms of reducing NO_x.



ENVIRONMENTAL BENEFITS

Compared with an aircraft taxiing using its jet engines, Electric Taxiing will **REDUCE EMISSIONS BY UP TO:**

- 51% NO_x**
- 61% CO₂**
- 62% HC**
- 73% CO**

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