## Here are some assumptions that went into calculating your carbon footprint

#### **Electricity:**

- Electric bill 11,698 kwh/year = average energy consumption / household<sup>1</sup>
- the U.S. average is 13.27 cents per kilowatt hour (kwh), 2 0.62 kilogramCO2 / kwh3
- 11,698 kwh/year \* 0.62 kgCO2/kwh = 7,252.76 kg CO2/year

## Flights per year:

- Flights per year average is 2.1 trips per American (if fly).<sup>4</sup>
- Assume 0.1304 kgCO2/km<sup>5</sup> for medium-term flights (DEFRA model).
- Domestic flights ~2.5-3 hr, 2200km \* 0.1304 kgCO2/km \* 2.1 trips = 602.448 kg CO2/yr

### **Transportation:**

- Average American drives around 15,000 per year (assume this is all forms of ground transport)<sup>6</sup>
- Fuel efficiency on car assume 30 mpg on road car now<sup>7</sup>
- 0.960 pounds = 0.435 kg CO2 per mile (driving) \* 15,000 miles/year = 6,525.0 kg CO2 / year 8
- 0.657 pounds = 0.298 kg of CO2 per mile 50% public transport, 50% single auto \* 15,000 miles/year = 4470.0 kg CO2 /year
- 0.354 pounds = 0.161 kg of CO2 per mile (public transportation) \* 15,000 miles / year = 2,415.0
  kg CO2 / year

## **Uber trips:**

- (14 uber million trips / day \* 0.50)<sup>9</sup> / 325 million people (USA) \* 365 days / year = 7.86 rides/person in the USA (assumes 50% of all uber rides are in the USA).
- Average ride length = 6 miles/trip \* 7.86 trips / person / year \* 0.960 kgCo2/mile = 45.27 kg Co2/uber rider/year.<sup>10</sup>

# Food choices / nutrition:11

- 1.7 US tons = 1,542.21406 kilograms of CO2/year vegetarian.
- 2.5 US tons = 2,267.96185 kilograms of CO2/year average.
- 3.3 US tons = 2,993.70964 kilograms of CO2/year meat lover.

### Amazon supply chain:

- 0.1289 kg CO2e per dollar (USD).<sup>12</sup>
- 3,300,000 boxes/day<sup>13</sup> \* 365 days/year / 325,000,000 Americans = 3.70 boxes/American.
- 3.70 boxes/year \* \$47 / box = ~\$173.90/year \* 0.1289 kg / \$1 USD= 22.41 kg CO2/year.



<sup>&</sup>lt;sup>1</sup> Shrinkthatfootprint.com. http://shrinkthatfootprint.com/average-household-electricity-consumption

<sup>&</sup>lt;sup>2</sup> Chooseenergy.com. <a href="https://www.chooseenergy.com/electricity-rates-by-state/">https://www.chooseenergy.com/electricity-rates-by-state/</a>

<sup>&</sup>lt;sup>3</sup> Quora. <a href="https://www.quora.com/How-much-CO2-is-produced-per-KWH-of-electricity">https://www.quora.com/How-much-CO2-is-produced-per-KWH-of-electricity</a>

<sup>&</sup>lt;sup>4</sup> Airlines.org. <a href="http://airlines.org/wp-content/uploads/2016/04/2016Survey.pdf">http://airlines.org/wp-content/uploads/2016/04/2016Survey.pdf</a>

<sup>&</sup>lt;sup>5</sup> Environmental Change Institute <a href="https://www.eci.ox.ac.uk/research/energy/downloads/jardine09-carboninflights.pdf">https://www.eci.ox.ac.uk/research/energy/downloads/jardine09-carboninflights.pdf</a>

<sup>&</sup>lt;sup>6</sup> Reference.com. <a href="https://www.reference.com/vehicles/average-mileage-put-car-year-5c8f88fa02be73c8">https://www.reference.com/vehicles/average-mileage-put-car-year-5c8f88fa02be73c8</a>

<sup>&</sup>lt;sup>7</sup> Wikipedia. https://en.wikipedia.org/wiki/Corporate average fuel economy

<sup>&</sup>lt;sup>8</sup> Tranistscreen.com <a href="http://blog.transitscreen.com/how-public-transit-can-and-must-help-reduce-carbon-pollution">http://blog.transitscreen.com/how-public-transit-can-and-must-help-reduce-carbon-pollution</a>

<sup>&</sup>lt;sup>9</sup> Businesofapps.com <u>https://www.businessofapps.com/data/uber-statistics/</u>

<sup>&</sup>lt;sup>10</sup> Ride.guru. https://ride.guru/lounge/p/what-is-the-average-trip-distance-for-an-uber-or-lyft-ride

<sup>&</sup>lt;sup>11</sup> Shrinkthatfootprint.com <a href="http://shrinkthatfootprint.com/food-carbon-footprint-diet">http://shrinkthatfootprint.com/food-carbon-footprint-diet</a>

<sup>&</sup>lt;sup>12</sup> AboutAmazon.com <a href="https://sustainability.aboutamazon.com/carbon-footprint">https://sustainability.aboutamazon.com/carbon-footprint</a>

<sup>&</sup>lt;sup>13</sup> Quora. <a href="https://www.quora.com/How-many-boxes-does-Amazon-ship-every-day">https://www.quora.com/How-many-boxes-does-Amazon-ship-every-day</a>