

Appendix 3.3

Assumption and Input Parameters for EMFAC-HK

Appendix 3.3 Estimation of Vehicular Emission for the Study Area by EMFAC-HK

Assessment Years

The Project is planned for completion by the end of Year 2015. Another new roads project, namely the “Road Works at West Kowloon” shall also be completed by Year 2015. Part of the new road works under the project CKR is planned to be completed by Year 2020 which are within the Project Study Area. Internal roads of WKCD development planned to be completed by Year 2017. Sensitivity test have been conducted to assess the worst assessment year between Year 2016 and Year 2030 (both inclusive) as shown in Appendix 3.2. Sensitivity test indicated that Year 2016 was found to be the worst-case assessment year within 15 years of the commencement of the Project even considering the planned CKR and WKCD projects.

Model Years

The calculation of EMFAC-HK includes vehicle model for 45 years. The starting model year is 45 years preceding the assessment year for year 2016.

Road Grouping

Appendix 3.1 shows the road networks within the Study Area covered in EMFAC-HK (version 2.5.1) model and all the road networks are categorized into 9 road types. No cold start at the middle of roads other than road type 1. The road type 5 and type 6 are present in tunnel related road for CKR project only and not be considered for the worst assessment year in 2016. The road types considered in this Project are provided in following table.

Type No.	Road Type
#Type 1	Local Road 50km/hr with cold start
Type 2	Local Road 50 km/hr
Type 3	District Distributor with 50km/hr
Type 4	Primary Distributor with 50km/hr
*Type 5	Tunnel Related Road with 70km/hr
*Type 6	Tunnel Related Road with 80km/hr
Type 7	Trunk Road with 70km/hr
Type 8	Trunk Road with 80km/hr
Type 9	Trunk Road with 100km/hr

* Road type for CKR related road as presented in the traffic data of Year 2021 and Year 2030.

Speed Profile

Based on the information from the Project traffic consultant, there is no major different on travel speed between vehicular types for specific type of road. However, speed limit of 70km/hr have been applied for heavy good vehicles > 15t (Vehicle Class No.08), non-franchised bus (No. 15, 16) and franchised bus (No. 17, 18). For public light bus (No. 11) and private light bus (No. 12, 13), speed limit of 80km/hr has been applied. The speed profiles for different road types are also provided in Appendix 3.1.

Vehicle Population

The vehicle population data (in Year 2010) published by EPD have been used for future assessment years in the EMFAC-HK modeling. The Year 2010 HK licensed vehicle population data are made reference to the EPD's website (http://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/emfac.html). The default vehicle populations forecast in EMFAC-HK v2.1 shall be used for this Project.

Temperature & Relative Humidity

The hourly temperatures and relative humidity profiles required by the modelling were provided from the meteorological station (at Tsim Sha Tsui) of the Hong Kong Observatory (HKO) in Year 2011. The key assumptions (including vehicle population, technology fractions, hourly temperature and relative humidity) for the EMFAC-HK model are shown in Table below.

Temperature and Relative Humidity Adopted in the EMFAC-HK Model

HKO Year 2011		
	Temperature °C	%RH (Hourly Average of Year)
0000-0100	22.3	80.1
0100-0200	22.2	80.6
0200-0300	22.0	81.1
0300-0400	21.9	81.1
0400-0500	21.7	81.1
0500-0600	21.6	81.2
0600-0700	21.6	80.8

0700-0800	21.9	79.5
0800-0900	22.4	76.9
0900-1000	22.9	74.2
1000-1100	23.7	71.1
1100-1200	24.5	68.8
1200-1300	24.9	67.6
1300-1400	25.0	67.4
1400-1500	25.0	67.8
1500-1600	24.8	69.0
1600-1700	24.2	71.1
1700-1800	23.6	73.6
1800-1900	23.2	75.5
1900-2000	23.1	76.6
2000-2100	22.9	77.6
2100-2200	22.8	78.2
2200-2300	22.7	79.0
2300-0000	22.5	79.8

Vehicle Emission Standard Implementation Programme and Technology Fraction

The requirements of the Air Pollution Control (Vehicle Design Standards) (Emission) Regulations must be complied for all first registration motor vehicles in Hong Kong. Therefore, it is considered applicable for this assessment.

The latest updated implementation programme of the vehicle emission standards in Hong Kong is adopted in this assessment based on the available data in EPD's website (March 2013). The exhaust technology fractions have been made reference to the latest 2010 licensed vehicle by age and technology group fractions for different vehicle classes as provided in EPD's web site (http://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/emfac.html). The latest implementation programme and technology fractions adopted in the EMFAC-HK are also provided in this appendix.

Vehicle Accrual

The default “Vehicle Accrual” in EMFAC-HK v2.5.1 has been adopted for the assessment.

Vehicle Kilometre Travelled (VKT)

VKT is calculated by multiplying the number of vehicles for each of the 16 vehicle types by the length of road travelled in the Study Area for each road type. The hourly traffic flows for the 16 vehicle type for different road type were provided by the Project traffic engineer. The forecast traffic flow and speed fraction for Year 2016 with 16 vehicle classes have been submitted to the Transport Department (TD) for agreement with the methodology of traffic forecast.

Trips

Trip in EMFAC-HK is referred to the number of cold start trip. Since there is no information on specific different between the local road in the Study Area and the local road within HKSAR, it is proposed to estimate the number of trips within the study area weighting by the VKT of local road within the study area and the VKT of local road within HKSAR. This can be achieved by applying the scale factor (ratio of the VKT within the study area and the VKT within the HKSAR) to the population within HKSAR (EMFAC-HK default population) for the assessment year. The scaling factor and the adjusted population are provided in this appendix. Since no cold start at the middle of roads other than road type 1, this scaling method has been adopted for road type 1 only.

Vehicular Emission Factor

The hourly emissions in Year 2016 (worst-case scenario) is first divided by the number of vehicles and the total distance travelled to obtain the local VKT information for each of road type for 16 vehicle types.

For the calculation of emission factor for road type 1 (with cold start trip), “**Burden**” mode is used for predicting the vehicular emission of 16 vehicle classes. By applying the VKT ratio between the Study Area and the HKSAR to adjust the population data in the EMFAC-HK, the pollutants emission (in tonne per day) can be calculated by the EMFAC-HK for each vehicle type for road type 1. The vehicular emission factor is calculated by dividing the total VKT to the pollutant emission.

“EmFac” mode in the EMFAC-HK is used for predicting the hourly vehicular emission of 16 vehicle classes for road type 2 to 9 (roads without cold start trips). Hourly temperature, relative humidity and vehicular speed for 16 vehicle classes are

the input parameters for the “EmFac” mode that the hourly running exhaust emission (in grams/km) can be calculated by the EMFAC-HK for each vehicle type for each road type.

The calculated hourly vehicular emission factors in gram per mile per vehicle are then selected for incorporation into the air dispersion model. The calculated vehicle emission factors together with the hourly forecasted traffic flow are used to calculate the emissions of the road links within the study area and the 24 hour emission for model input in this Project. The calculation of maximum fleet vehicle emission for Year 2016 with 16 vehicle classes is presented in Appendix 3.4. The calculated vehicular emissions of NO_x and RSP for different vehicle classes for different road types are listed below. Those zero emission factor means that no vehicle is forecasted for that type of vehicle for this specific road type.

Notation for EMFAC-HK Model

Vehicle Class No.	Vehicle Class Description	Notation
1	Private Cars (PC)	PC
2	Placeholder (P1)	P1
3	Taxi	Taxi
4	Light Goods Vehicles (<=2.5t)	LGV3
5	Light Goods Vehicles (2.5-3.5t)	LGV4
6	Light Goods Vehicles (3.5-5.5t)	LGV6
7	Medium & Heavy Goods Vehicles (5.5-15t)	HGV7
8	Medium & Heavy Goods Vehicles (>=15t)	HGV8
9	Placeholder (P2)	P2
10	Placeholder (P3)	P3
11	Public Light Buses	PLB
12	Private Light Buses (<=3.5t)	PV4
13	Private Light Buses (>3.5t)	PV5
14	Non-franchised Buses (<6.4t)	NFB6
15	Non-franchised Buses (6.4-15t)	NFB7
16	Non-franchised Buses (>15t)	NFB8
17	Single Deck Franchised Buses	FBSD
18	Double Deck Franchised Buses	FBDD
19	Motor Cycles	MC
20	Placeholder (P4)	P4
21	Placeholder (P5)	P5

Road Type No.	Road Type Description
Type 1	Local Road 50km/hr with cool start
Type 2	Local Road 50 km/hr
Type 3	District Distributor with 50km/hr
Type 4	Primary Distributor with 50km/hr
Type 5	Tunnel Related Road with 70km/hr (CKR Project)
Type 6	Tunnel Related Road with 80km/hr (CKR Project)
Type 7	Trunk Road with 70km/hr
Type 8	Trunk Road with 80km/hr
Type 9	Trunk Road with 100km/hr

Population end 2010

FirstRegYear	Age	PC		Taxi		LGV3		LGV4		LGV6	HGV7	HGV8	PLB		PV4			PV5			NFB6	NFB7	NFB8	FBSD	FBDD	MC
		Petrol	Diesel	Diesel	LPG	Petrol	Diesel	Petrol	Diesel	Diesel	Diesel	Diesel	LPG	Petrol	Diesel	LPG	Petrol	Diesel	LPG	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
2010	1	39,801	149	0	393	0	25	35	2,791	989	730	2,146	39	125	82	13	0	0	56	73	169	157	261	57	198	2,832
2009	2	27,134	81	0	361	0	25	48	1,704	644	356	698	13	75	326	1	0	0	61	81	161	114	227	42	57	2,464
2008	3	33,681	0	0	568	0	7	60	3,842	1,227	724	1,818	89	120	91	24	4	10	177	132	226	238	239	10	46	3,462
2007	4	31,952	0	0	335	0	4	186	3,227	1,079	564	1,517	60	50	263	2	0	0	75	109	190	154	199	9	67	3,668
2006	5	26,550	0	0	387	1	2	192	3,146	1,139	548	1,575	16	60	92	10	0	0	29	79	177	170	191	14	113	3,571
2005	6	25,838	0	0	447	2	1	65	2,988	1,150	579	1,604	88	1,072	212	4	0	0	29	34	149	154	230	23	50	3,711
2004	7	26,010	0	0	582	0	0	76	2,168	1,266	541	1,904	188	670	206	12	0	0	22	66	200	118	165	11	175	3,658
2003	8	21,123	1	0	1,429	4	1	49	1,536	1,064	350	1,354	125	331	221	23	0	0	20	89	304	129	163	14	191	3,187
2002	9	27,432	1	0	2,570	11	0	54	1,703	1,373	541	1,538	34	284	195	32	0	0	24	45	377	139	168	0	409	2,668
2001	10	29,641	0	0	8,856	7	3	140	1,984	1,534	421	1,490	155	15	108	22	0	0	69	3	403	232	135	3	360	2,082
2000	11	27,499	0	0	2,269	7	1	198	2,209	1,766	493	2,136	135	0	180	28	0	0	101	1	287	148	76	14	379	1,526
1999	12	22,015	0	0	43	2	3	57	2,220	1,297	451	1,277	171	0	21	36	0	1	74	0	209	166	73	24	486	1,526
1998	13	21,974	119	0	0	0	2	27	2,482	1,334	405	1,235	137	0	32	49	0	0	65	0	134	125	60	103	917	1,255
1997	14	23,722	260	0	1	1	1	6	2,668	1,975	589	1,842	142	0	9	39	0	1	75	0	115	92	21	4	749	1,170
1996	15	9,326	169	1	0	6	4	2	1,477	1,450	341	1,204	71	0	0	26	0	0	64	0	53	58	21	3	387	757
1995	16	6,501	199	1	0	37	29	4	1,274	1,205	397	1,026	55	0	0	36	0	0	102	0	28	42	19	17	379	546
1994	17	6,296	177	0	0	11	138	8	1,466	1,372	531	1,218	20	0	0	33	0	0	93	0	10	23	2	18	289	320
1993	18	3,413	179	0	0	16	182	4	1,449	1,444	650	1,189	6	0	0	15	0	0	61	0	17	7	10	15	97	198
1992	19	1,933	98	0	0	6	116	0	973	1,259	687	1,350	0	0	0	14	0	0	40	0	3	6	41	0	0	127
1991	20	957	161	0	0	9	65	1	311	400	384	783	0	0	0	0	0	0	38	0	0	6	30	0	0	85
1990	21	551	114	0	0	7	146	1	156	246	133	473	2	0	0	0	0	0	10	0	0	17	0	0	0	62
1989	22	396	77	0	0	10	91	0	38	175	99	375	0	0	0	0	0	0	21	0	0	7	0	0	0	53
1988	23	263	49	0	0	12	59	1	20	103	88	218	0	0	0	0	0	0	7	0	0	2	0	0	0	24
1987	24	166	34	0	0	5	46	0	4	39	38	157	0	0	0	0	0	0	3	0	0	1	3	0	0	15
1986	25	133	25	0	0	4	16	0	2	20	10	42	0	0	0	2	0	0	0	0	0	0	1	0	0	11
1985	26	79	7	0	0	2	1	0	1	2	6	45	0	0	0	0	0	0	1	0	0	0	0	0	0	2
1984	27	38	9	0	0	0	0	0	0	1	4	4	0	0	0	0	0	0	0	0	0	0	5	0	0	4
1983	28	29	7	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	2
1982	29	68	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
1981	30	78	7	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	22
1980	31	81	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
1979	32	47	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
1978	33	34	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
1977	34	38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	35	28	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	36	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1974	37	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1973	38	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
1972	39	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
1971	40	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
1970	41	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1969	42	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1968	43	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1967	44	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>44		31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3

PC Technology Group Fractions

Model Year	Petrol						Diesel				Total
	pre-Unleaded Petrol Vehicles	Unleaded Petrol Vehicles	Euro I	Euro II	Euro III	Euro IV	pre-Euro with traps	pre-Euro with DOC	Euro I	Euro IV	
1965	100.0%										100.0%
1966	100.0%										100.0%
1967	100.0%										100.0%
1968	100.0%										100.0%
1969	100.0%										100.0%
1970	100.0%										100.0%
1971	100.0%										100.0%
1972	100.0%										100.0%
1973	100.0%										100.0%
1974	100.0%										100.0%
1975	100.0%										100.0%
1976	93.3%						6.7%				100.0%
1977	95.0%						2.5%	2.5%			100.0%
1978	91.9%						0.0%	8.1%			100.0%
1979	95.9%						2.0%	2.0%			100.0%
1980	96.4%						2.4%	1.2%			100.0%
1981	91.8%						7.1%	1.2%			100.0%
1982	97.1%						2.9%				100.0%
1983	80.6%						11.1%	8.3%			100.0%
1984	80.9%						12.8%	6.4%			100.0%
1985	91.9%						5.8%	2.3%			100.0%
1986	84.2%						15.2%	0.6%			100.0%
1987	83.0%						12.5%	4.5%			100.0%
1988	84.3%						13.5%	2.2%			100.0%
1989	83.7%						13.7%	2.5%			100.0%
1990	82.9%						14.4%	2.7%			100.0%
1991	85.6%						11.1%	3.3%			100.0%
1992		95.2%					3.6%	1.2%			100.0%
1993		95.0%					3.5%	1.5%			100.0%
1994		97.3%					1.8%	0.9%			100.0%
1995		35.7%	61.3%				0.4%	0.2%	2.3%		100.0%
1996			98.2%						1.8%		100.0%
1997			17.6%	81.3%					1.1%		100.0%
1998				99.5%					0.5%		100.0%
1999				100.0%							100.0%
2000				100.0%							100.0%
2001					100.0%						100.0%
2002					100.0%				0.0%		100.0%
2003					100.0%				0.0%		100.0%
2004					100.0%						100.0%
2005					100.0%						100.0%
2006						100.0%					100.0%
2007						100.0%					100.0%
2008						100.0%					100.0%
2009						99.7%				0.3%	100.0%
2010						99.6%				0.4%	100.0%

Taxi Technology Group Fractions

Model Year	LPG			Diesel		Total
	Euro II	Euro III	Euro IV	pre-Euro with traps	Euro I	
1965				100.0%		100.0%
1966				100.0%		100.0%
1967				100.0%		100.0%
1968				100.0%		100.0%
1969				100.0%		100.0%
1970				100.0%		100.0%
1971				100.0%		100.0%
1972				100.0%		100.0%
1973				100.0%		100.0%
1974				100.0%		100.0%
1975				100.0%		100.0%
1976				100.0%		100.0%
1977				100.0%		100.0%
1978				100.0%		100.0%
1979				100.0%		100.0%
1980				100.0%		100.0%
1981				100.0%		100.0%
1982				100.0%		100.0%
1983				100.0%		100.0%
1984				100.0%		100.0%
1985				100.0%		100.0%
1986				100.0%		100.0%
1987				100.0%		100.0%
1988				100.0%		100.0%
1989				100.0%		100.0%
1990				100.0%		100.0%
1991				100.0%		100.0%
1992				100.0%		100.0%
1993				100.0%		100.0%
1994				100.0%		100.0%
1995				100.0%		100.0%
1996					100.0%	100.0%
1997	100.0%					100.0%
1998	100.0%					100.0%
1999	100.0%					100.0%
2000	100.0%					100.0%
2001	100.0%					100.0%
2002	100.0%					100.0%
2003	65.6%	34.4%				100.0%
2004		100.0%				100.0%
2005		100.0%				100.0%
2006			100.0%			100.0%
2007			100.0%			100.0%
2008			100.0%			100.0%
2009			100.0%			100.0%
2010			100.0%			100.0%

LGV3 Technology Group Fractions

Model Year	Petrol					Diesel						Total
	pre-Unleaded Petrol Vehicles	Unleaded Petrol Vehicles	Euro I	Euro II	Euro III	pre-Euro with traps	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965						100.0%						100.0%
1966						100.0%						100.0%
1967						100.0%						100.0%
1968						100.0%						100.0%
1969						100.0%						100.0%
1970						100.0%						100.0%
1971						100.0%						100.0%
1972						100.0%						100.0%
1973						100.0%						100.0%
1974						100.0%						100.0%
1975						100.0%						100.0%
1976						100.0%						100.0%
1977						100.0%						100.0%
1978						100.0%						100.0%
1979						100.0%						100.0%
1980						100.0%						100.0%
1981						100.0%						100.0%
1982						100.0%						100.0%
1983						100.0%						100.0%
1984						100.0%						100.0%
1985	66.7%					33.3%						100.0%
1986	20.0%					70.0%	10.0%					100.0%
1987	9.8%					84.3%	5.9%					100.0%
1988	16.9%					76.1%	7.0%					100.0%
1989	9.9%					81.2%	8.9%					100.0%
1990	4.6%					86.9%	8.5%					100.0%
1991	12.2%					74.3%	13.5%					100.0%
1992		4.9%				77.0%	18.0%					100.0%
1993		8.1%				76.8%	15.2%					100.0%
1994		7.4%				70.5%	22.1%					100.0%
1995		9.1%	47.0%			28.8%	12.1%	3.0%				100.0%
1996			60.0%					40.0%				100.0%
1997			50.0%					50.0%				100.0%
1998								100.0%				100.0%
1999				40.0%					60.0%			100.0%
2000				87.5%					12.5%			100.0%
2001				70.0%					30.0%			100.0%
2002					100.0%							100.0%
2003					80.0%					20.0%		100.0%
2004										100.0%		100.0%
2005					66.7%					33.3%		100.0%
2006					33.3%					66.7%		100.0%
2007											100.0%	100.0%
2008											100.0%	100.0%
2009											100.0%	100.0%
2010											100.0%	100.0%

LGV4 Technology Group Fractions

Model Year	Petrol					Diesel						Total
	pre-Euro	Euro I	Euro II	Euro III	Euro IV	pre-Euro with traps	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965						100.0%						100.0%
1966						100.0%						100.0%
1967						100.0%						100.0%
1968						100.0%						100.0%
1969						100.0%						100.0%
1970						100.0%						100.0%
1971						100.0%						100.0%
1972						100.0%						100.0%
1973						100.0%						100.0%
1974						100.0%						100.0%
1975						100.0%						100.0%
1976						100.0%						100.0%
1977						100.0%						100.0%
1978						100.0%						100.0%
1979						100.0%						100.0%
1980						100.0%						100.0%
1981						100.0%						100.0%
1982						100.0%						100.0%
1983						100.0%						100.0%
1984						100.0%						100.0%
1985							100.0%					100.0%
1986						50.0%	50.0%					100.0%
1987						100.0%	0.0%					100.0%
1988	4.8%					85.7%	9.5%					100.0%
1989						68.4%	31.6%					100.0%
1990	0.6%					84.7%	14.6%					100.0%
1991	0.3%					85.3%	14.4%					100.0%
1992						82.6%	17.4%					100.0%
1993	0.3%					82.9%	16.8%					100.0%
1994	0.5%					80.7%	18.7%					100.0%
1995	0.3%					22.5%	5.9%	71.2%				100.0%
1996		0.1%						99.9%				100.0%
1997		0.2%						99.8%				100.0%
1998		1.0%	0.1%					76.0%	22.9%			100.0%
1999			2.5%						97.5%			100.0%
2000			8.2%						91.8%			100.0%
2001			6.6%						93.4%			100.0%
2002				3.1%						96.9%		100.0%
2003				3.1%						96.9%		100.0%
2004				3.4%						96.6%		100.0%
2005				2.1%						97.9%		100.0%
2006				5.8%						94.2%		100.0%
2007					5.4%						94.6%	100.0%
2008					1.5%						98.5%	100.0%
2009					2.7%						97.3%	100.0%
2010					1.2%						98.8%	100.0%

LGV6 Technology Group Fractions

Model Year	Diesel					Total
	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965	100.0%					100.0%
1966	100.0%					100.0%
1967	100.0%					100.0%
1968	100.0%					100.0%
1969	100.0%					100.0%
1970	100.0%					100.0%
1971	100.0%					100.0%
1972	100.0%					100.0%
1973	100.0%					100.0%
1974	100.0%					100.0%
1975	100.0%					100.0%
1976	100.0%					100.0%
1977	100.0%					100.0%
1978	100.0%					100.0%
1979	100.0%					100.0%
1980	100.0%					100.0%
1981	100.0%					100.0%
1982	100.0%					100.0%
1983	100.0%					100.0%
1984	100.0%					100.0%
1985	100.0%					100.0%
1986	100.0%					100.0%
1987	100.0%					100.0%
1988	100.0%					100.0%
1989	100.0%					100.0%
1990	100.0%					100.0%
1991	100.0%					100.0%
1992	100.0%					100.0%
1993	100.0%					100.0%
1994	100.0%					100.0%
1995	29.8%	70.2%				100.0%
1996		100.0%				100.0%
1997		20.8%	79.2%			100.0%
1998			100.0%			100.0%
1999			100.0%			100.0%
2000			100.0%			100.0%
2001			79.3%	20.7%		100.0%
2002				100.0%		100.0%
2003				100.0%		100.0%
2004				100.0%		100.0%
2005				100.0%		100.0%
2006				76.4%	23.6%	100.0%
2007					100.0%	100.0%
2008					100.0%	100.0%
2009					100.0%	100.0%
2010					100.0%	100.0%

HGV7 Technology Group Fractions

Model Year	Diesel					Total
	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965	100.0%					100.0%
1966	100.0%					100.0%
1967	100.0%					100.0%
1968	100.0%					100.0%
1969	100.0%					100.0%
1970	100.0%					100.0%
1971	100.0%					100.0%
1972	100.0%					100.0%
1973	100.0%					100.0%
1974	100.0%					100.0%
1975	100.0%					100.0%
1976	100.0%					100.0%
1977	100.0%					100.0%
1978	100.0%					100.0%
1979	100.0%					100.0%
1980	100.0%					100.0%
1981	100.0%					100.0%
1982	100.0%					100.0%
1983	100.0%					100.0%
1984	100.0%					100.0%
1985	100.0%					100.0%
1986	100.0%					100.0%
1987	100.0%					100.0%
1988	100.0%					100.0%
1989	100.0%					100.0%
1990	100.0%					100.0%
1991	100.0%					100.0%
1992	100.0%					100.0%
1993	100.0%					100.0%
1994	100.0%					100.0%
1995	32.5%	67.5%				100.0%
1996		100.0%				100.0%
1997		20.5%	79.5%			100.0%
1998			100.0%			100.0%
1999			100.0%			100.0%
2000			100.0%			100.0%
2001			74.8%	25.2%		100.0%
2002				100.0%		100.0%
2003				100.0%		100.0%
2004				100.0%		100.0%
2005				100.0%		100.0%
2006				77.4%	22.6%	100.0%
2007					100.0%	100.0%
2008					100.0%	100.0%
2009					100.0%	100.0%
2010					100.0%	100.0%

HGV8 Technology Group Fractions

Model Year	Diesel					Total
	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965	100.0%					100.0%
1966	100.0%					100.0%
1967	100.0%					100.0%
1968	100.0%					100.0%
1969	100.0%					100.0%
1970	100.0%					100.0%
1971	100.0%					100.0%
1972	100.0%					100.0%
1973	100.0%					100.0%
1974	100.0%					100.0%
1975	100.0%					100.0%
1976	100.0%					100.0%
1977	100.0%					100.0%
1978	100.0%					100.0%
1979	100.0%					100.0%
1980	100.0%					100.0%
1981	100.0%					100.0%
1982	100.0%					100.0%
1983	100.0%					100.0%
1984	100.0%					100.0%
1985	100.0%					100.0%
1986	100.0%					100.0%
1987	100.0%					100.0%
1988	100.0%					100.0%
1989	100.0%					100.0%
1990	100.0%					100.0%
1991	100.0%					100.0%
1992	100.0%					100.0%
1993	100.0%					100.0%
1994	100.0%					100.0%
1995	30.3%	69.7%				100.0%
1996		100.0%				100.0%
1997		18.9%	81.1%			100.0%
1998			100.0%			100.0%
1999			100.0%			100.0%
2000			100.0%			100.0%
2001			84.4%	15.6%		100.0%
2002				100.0%		100.0%
2003				100.0%		100.0%
2004				100.0%		100.0%
2005				100.0%		100.0%
2006				75.9%	24.1%	100.0%
2007					100.0%	100.0%
2008					100.0%	100.0%
2009					100.0%	100.0%
2010					100.0%	100.0%

PLB Technology Group Fractions

Model Year	LPG		Diesel						Total
	Euro III	Euro IV	pre-Euro with traps	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965			100.0%						100.0%
1966			100.0%						100.0%
1967			100.0%						100.0%
1968			100.0%						100.0%
1969			100.0%						100.0%
1970			100.0%						100.0%
1971			100.0%						100.0%
1972			100.0%						100.0%
1973			100.0%						100.0%
1974			100.0%						100.0%
1975			100.0%						100.0%
1976			100.0%						100.0%
1977			100.0%						100.0%
1978			100.0%						100.0%
1979			100.0%						100.0%
1980			100.0%						100.0%
1981			100.0%						100.0%
1982			100.0%						100.0%
1983			100.0%						100.0%
1984			100.0%						100.0%
1985			100.0%						100.0%
1986			100.0%						100.0%
1987			100.0%						100.0%
1988			100.0%						100.0%
1989			100.0%						100.0%
1990				100.0%					100.0%
1991				100.0%					100.0%
1992				100.0%					100.0%
1993			66.7%	33.3%					100.0%
1994			30.0%	70.0%					100.0%
1995			1.8%	10.9%	87.3%				100.0%
1996					100.0%				100.0%
1997					100.0%				100.0%
1998					70.8%	29.2%			100.0%
1999						100.0%			100.0%
2000						100.0%			100.0%
2001	8.8%					91.2%			100.0%
2002	89.3%					10.7%			100.0%
2003	72.6%					5.7%	21.7%		100.0%
2004	78.1%						21.9%		100.0%
2005	92.4%						7.6%		100.0%
2006	55.3%	23.7%					17.1%	3.9%	100.0%
2007		45.5%						54.5%	100.0%
2008		57.4%						42.6%	100.0%
2009		85.2%						14.8%	100.0%
2010		76.2%						23.8%	100.0%

PV4 Technology Group Fractions

Model Year	Petrol				Diesel						Total	
	Euro I	Euro II	Euro III	Euro IV	pre-Euro with traps	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV		
1965					100.0%							100.0%
1966					100.0%							100.0%
1967					100.0%							100.0%
1968					100.0%							100.0%
1969					100.0%							100.0%
1970					100.0%							100.0%
1971					100.0%							100.0%
1972					100.0%							100.0%
1973					100.0%							100.0%
1974					100.0%							100.0%
1975					100.0%							100.0%
1976					100.0%							100.0%
1977					100.0%							100.0%
1978					100.0%							100.0%
1979					100.0%							100.0%
1980					100.0%							100.0%
1981					100.0%							100.0%
1982					100.0%							100.0%
1983					100.0%							100.0%
1984					100.0%							100.0%
1985					100.0%							100.0%
1986					100.0%							100.0%
1987					100.0%							100.0%
1988					100.0%							100.0%
1989					100.0%							100.0%
1990					100.0%							100.0%
1991					100.0%							100.0%
1992					64.3%	35.7%						100.0%
1993					66.7%	33.3%						100.0%
1994					60.6%	39.4%						100.0%
1995					16.7%	2.8%	80.6%					100.0%
1996							100.0%					100.0%
1997	18.8%						81.3%					100.0%
1998	12.3%	27.2%					44.4%	16.0%				100.0%
1999		36.8%						63.2%				100.0%
2000		86.5%						13.5%				100.0%
2001		83.1%						16.9%				100.0%
2002			85.9%						14.1%			100.0%
2003			90.6%						9.4%			100.0%
2004			94.5%						5.5%			100.0%
2005			98.1%						1.9%			100.0%
2006			90.2%						9.8%			100.0%
2007				99.2%							0.8%	100.0%
2008				79.8%							20.2%	100.0%
2009				99.7%							0.3%	100.0%
2010				86.3%							13.7%	100.0%

PV5 Technology Group Fractions

Model Year	Petrol			LPG		Diesel						Total
	Euro I	Euro II	Euro IV	Euro III	Euro IV	pre-Euro with traps	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965						100.0%						100.0%
1966						100.0%						100.0%
1967						100.0%						100.0%
1968						100.0%						100.0%
1969						100.0%						100.0%
1970						100.0%						100.0%
1971						100.0%						100.0%
1972						100.0%						100.0%
1973						100.0%						100.0%
1974						100.0%						100.0%
1975						100.0%						100.0%
1976						100.0%						100.0%
1977						100.0%						100.0%
1978						100.0%						100.0%
1979						100.0%						100.0%
1980						100.0%						100.0%
1981						100.0%						100.0%
1982						100.0%						100.0%
1983						100.0%						100.0%
1984						100.0%						100.0%
1985							100.0%					100.0%
1986						100.0%						100.0%
1987						66.7%	33.3%					100.0%
1988						57.1%	42.9%					100.0%
1989						81.0%	19.0%					100.0%
1990						90.0%	10.0%					100.0%
1991						81.6%	18.4%					100.0%
1992						75.0%	25.0%					100.0%
1993						80.3%	19.7%					100.0%
1994						63.4%	36.6%					100.0%
1995						6.9%	8.8%	84.3%				100.0%
1996								100.0%				100.0%
1997	1.3%							98.7%				100.0%
1998								78.5%	21.5%			100.0%
1999		1.3%							98.7%			100.0%
2000				1.0%					99.0%			100.0%
2001				4.2%					95.8%			100.0%
2002				65.2%					34.8%			100.0%
2003				81.7%					7.3%	11.0%		100.0%
2004				75.0%						25.0%		100.0%
2005				54.0%						46.0%		100.0%
2006				54.6%	18.5%					23.1%	3.7%	100.0%
2007					59.2%						40.8%	100.0%
2008			3.1%		41.4%						55.5%	100.0%
2009					57.0%						43.0%	100.0%
2010					56.6%						43.4%	100.0%

NFB6 Technology Group Fractions

Model Year	Diesel					Total
	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965	100.0%					100.0%
1966	100.0%					100.0%
1967	100.0%					100.0%
1968	100.0%					100.0%
1969	100.0%					100.0%
1970	100.0%					100.0%
1971	100.0%					100.0%
1972	100.0%					100.0%
1973	100.0%					100.0%
1974	100.0%					100.0%
1975	100.0%					100.0%
1976	100.0%					100.0%
1977	100.0%					100.0%
1978	100.0%					100.0%
1979	100.0%					100.0%
1980	100.0%					100.0%
1981	100.0%					100.0%
1982	100.0%					100.0%
1983	100.0%					100.0%
1984	100.0%					100.0%
1985	100.0%					100.0%
1986	100.0%					100.0%
1987	100.0%					100.0%
1988	100.0%					100.0%
1989	100.0%					100.0%
1990	100.0%					100.0%
1991	100.0%					100.0%
1992	100.0%					100.0%
1993	100.0%					100.0%
1994	100.0%					100.0%
1995	17.9%	82.1%				100.0%
1996		100.0%				100.0%
1997		7.0%	93.0%			100.0%
1998			100.0%			100.0%
1999			100.0%			100.0%
2000			100.0%			100.0%
2001			82.1%	17.9%		100.0%
2002				100.0%		100.0%
2003				100.0%		100.0%
2004				100.0%		100.0%
2005				100.0%		100.0%
2006				86.4%	13.6%	100.0%
2007					100.0%	100.0%
2008					100.0%	100.0%
2009					100.0%	100.0%
2010					100.0%	100.0%

NFB7 Technology Group Fractions

Model Year	Diesel					Total
	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965	100.0%					100.0%
1966	100.0%					100.0%
1967	100.0%					100.0%
1968	100.0%					100.0%
1969	100.0%					100.0%
1970	100.0%					100.0%
1971	100.0%					100.0%
1972	100.0%					100.0%
1973	100.0%					100.0%
1974	100.0%					100.0%
1975	100.0%					100.0%
1976	100.0%					100.0%
1977	100.0%					100.0%
1978	100.0%					100.0%
1979	100.0%					100.0%
1980	100.0%					100.0%
1981	100.0%					100.0%
1982	100.0%					100.0%
1983	100.0%					100.0%
1984	100.0%					100.0%
1985	100.0%					100.0%
1986	100.0%					100.0%
1987	100.0%					100.0%
1988	100.0%					100.0%
1989	100.0%					100.0%
1990	100.0%					100.0%
1991	100.0%					100.0%
1992	100.0%					100.0%
1993	100.0%					100.0%
1994	100.0%					100.0%
1995	14.3%	85.7%				100.0%
1996		100.0%				100.0%
1997		19.6%	80.4%			100.0%
1998			100.0%			100.0%
1999			100.0%			100.0%
2000			100.0%			100.0%
2001			67.7%	32.3%		100.0%
2002				100.0%		100.0%
2003				100.0%		100.0%
2004				100.0%		100.0%
2005				100.0%		100.0%
2006				82.4%	17.6%	100.0%
2007					100.0%	100.0%
2008					100.0%	100.0%
2009					100.0%	100.0%
2010					100.0%	100.0%

NFB8 Technology Group Fractions

Model Year	Diesel					Total
	pre-Euro with DOC	Euro I	Euro II	Euro III	Euro IV	
1965	100.0%					100.0%
1966	100.0%					100.0%
1967	100.0%					100.0%
1968	100.0%					100.0%
1969	100.0%					100.0%
1970	100.0%					100.0%
1971	100.0%					100.0%
1972	100.0%					100.0%
1973	100.0%					100.0%
1974	100.0%					100.0%
1975	100.0%					100.0%
1976	100.0%					100.0%
1977	100.0%					100.0%
1978	100.0%					100.0%
1979	100.0%					100.0%
1980	100.0%					100.0%
1981	100.0%					100.0%
1982	100.0%					100.0%
1983	100.0%					100.0%
1984	100.0%					100.0%
1985	100.0%					100.0%
1986	100.0%					100.0%
1987	100.0%					100.0%
1988	100.0%					100.0%
1989	100.0%					100.0%
1990	100.0%					100.0%
1991	100.0%					100.0%
1992	100.0%					100.0%
1993	100.0%					100.0%
1994	100.0%					100.0%
1995	21.1%	78.9%				100.0%
1996		100.0%				100.0%
1997		9.5%	90.5%			100.0%
1998			100.0%			100.0%
1999			100.0%			100.0%
2000			100.0%			100.0%
2001			65.2%	34.8%		100.0%
2002				100.0%		100.0%
2003				100.0%		100.0%
2004				100.0%		100.0%
2005				100.0%		100.0%
2006				70.7%	29.3%	100.0%
2007					100.0%	100.0%
2008					100.0%	100.0%
2009					100.0%	100.0%
2010					100.0%	100.0%

FBSD Technology Group Fractions

Model Year	Diesel									Total
	Pre-Euro with DOC	Euro I with DOC	Euro II	Euro II with DPF	Euro II with VEC	Euro III	Euro III with DPF	Euro IV	Euro V	
1965	100.0%									100.0%
1966	100.0%									100.0%
1967	100.0%									100.0%
1968	100.0%									100.0%
1969	100.0%									100.0%
1970	100.0%									100.0%
1971	100.0%									100.0%
1972	100.0%									100.0%
1973	100.0%									100.0%
1974	100.0%									100.0%
1975	100.0%									100.0%
1976	100.0%									100.0%
1977	100.0%									100.0%
1978	100.0%									100.0%
1979	100.0%									100.0%
1980	100.0%									100.0%
1981	100.0%									100.0%
1982	100.0%									100.0%
1983	100.0%									100.0%
1984	100.0%									100.0%
1985	100.0%									100.0%
1986	100.0%									100.0%
1987	100.0%									100.0%
1988	100.0%									100.0%
1989	100.0%									100.0%
1990	100.0%									100.0%
1991	100.0%									100.0%
1992	100.0%									100.0%
1993	100.0%									100.0%
1994		100.0%								100.0%
1995		100.0%								100.0%
1996		33.3%		66.7%						100.0%
1997				100.0%						100.0%
1998			9.7%	90.3%						100.0%
1999			8.3%	91.7%						100.0%
2000			7.1%	92.9%						100.0%
2001				100.0%						100.0%
2002			100.0%							100.0%
2003					42.9%	7.1%	50.0%			100.0%
2004					45.5%	9.1%	45.5%			100.0%
2005					43.5%	8.7%	47.8%			100.0%
2006					42.9%	7.1%	50.0%			100.0%
2007					22.2%		22.2%	55.6%		100.0%
2008								100.0%		100.0%
2009								100.0%		100.0%
2010								14.0%	86.0%	100.0%

FBDD Technology Group Fractions

Model Year	Diesel									Total
	Pre-Euro with DOC	Euro I with DOC	Euro II	Euro II with DPF	Euro II with VEC	Euro III	Euro III with DPF	Euro IV	Euro V	
1965	100.0%									100.0%
1966	100.0%									100.0%
1967	100.0%									100.0%
1968	100.0%									100.0%
1969	100.0%									100.0%
1970	100.0%									100.0%
1971	100.0%									100.0%
1972	100.0%									100.0%
1973	100.0%									100.0%
1974	100.0%									100.0%
1975	100.0%									100.0%
1976	100.0%									100.0%
1977	100.0%									100.0%
1978	100.0%									100.0%
1979	100.0%									100.0%
1980	100.0%									100.0%
1981	100.0%									100.0%
1982	100.0%									100.0%
1983	100.0%									100.0%
1984	100.0%									100.0%
1985	100.0%									100.0%
1986	100.0%									100.0%
1987	100.0%									100.0%
1988	100.0%									100.0%
1989	100.0%									100.0%
1990	100.0%									100.0%
1991	100.0%									100.0%
1992	100.0%									100.0%
1993	82.5%	17.5%								100.0%
1994	9.7%	90.3%								100.0%
1995		100.0%								100.0%
1996		94.8%	0.5%	4.7%						100.0%
1997		30.0%	7.1%	62.9%						100.0%
1998		0.1%	10.1%	89.7%						100.0%
1999			10.1%	89.9%						100.0%
2000			10.0%	90.0%						100.0%
2001			5.0%	43.6%	21.9%	4.7%	24.7%			100.0%
2002				0.7%	42.8%	9.0%	47.4%			100.0%
2003					42.9%	8.9%	48.2%			100.0%
2004					42.9%	9.1%	48.0%			100.0%
2005					42.0%	10.0%	48.0%			100.0%
2006					42.5%	8.8%	46.9%	1.8%		100.0%
2007					38.8%	9.0%	43.3%	9.0%		100.0%
2008					19.6%	4.3%	23.9%	52.2%		100.0%
2009								100.0%		100.0%
2010								28.3%	71.7%	100.0%

MC Technology Group Fractions

Model Year	Petrol			Total
	pre-Euro	Euro I	Euro III	
1965	100.0%			100.0%
1966	100.0%			100.0%
1967	100.0%			100.0%
1968	100.0%			100.0%
1969	100.0%			100.0%
1970	100.0%			100.0%
1971	100.0%			100.0%
1972	100.0%			100.0%
1973	100.0%			100.0%
1974	100.0%			100.0%
1975	100.0%			100.0%
1976	100.0%			100.0%
1977	100.0%			100.0%
1978	100.0%			100.0%
1979	100.0%			100.0%
1980	100.0%			100.0%
1981	100.0%			100.0%
1982	100.0%			100.0%
1983	100.0%			100.0%
1984	100.0%			100.0%
1985	100.0%			100.0%
1986	100.0%			100.0%
1987	100.0%			100.0%
1988	100.0%			100.0%
1989	100.0%			100.0%
1990	100.0%			100.0%
1991	100.0%			100.0%
1992	100.0%			100.0%
1993	100.0%			100.0%
1994	100.0%			100.0%
1995	100.0%			100.0%
1996	100.0%			100.0%
1997	100.0%			100.0%
1998	100.0%			100.0%
1999	72.9%	27.1%		100.0%
2000		100.0%		100.0%
2001		100.0%		100.0%
2002		100.0%		100.0%
2003		100.0%		100.0%
2004		100.0%		100.0%
2005		100.0%		100.0%
2006		100.0%		100.0%
2007		100.0%		100.0%
2008		100.0%		100.0%
2009			100.0%	100.0%
2010			100.0%	100.0%

HKO Year 2011

	Temp Degree C(Hourly Average of Year)	%RH (Hourly Average of Year)
0000-0100	22.3	80.1
0100-0200	22.2	80.6
0200-0300	22.0	81.1
0300-0400	21.9	81.1
0400-0500	21.7	81.1
0500-0600	21.6	81.2
0600-0700	21.6	80.8
0700-0800	21.9	79.5
0800-0900	22.4	76.9
0900-1000	22.9	74.2
1000-1100	23.7	71.1
1100-1200	24.5	68.8
1200-1300	24.9	67.6
1300-1400	25.0	67.4
1400-1500	25.0	67.8
1500-1600	24.8	69.0
1600-1700	24.2	71.1
1700-1800	23.6	73.6
1800-1900	23.2	75.5
1900-2000	23.1	76.6
2000-2100	22.9	77.6
2100-2200	22.8	78.2
2200-2300	22.7	79.0
2300-0000	22.5	79.8

Year 2016	Daily VKT For Local (Study Area)						
Vehicular Type	Road Type 1	Road Type 2	Road Type 3	Road Type 4	Road Type 7	Road Type 8	Road Type 9
01 - Private Cars (PC)	29651.7115	23072.25	33226.616	203759.412	3718.357	30700.819	107872.314
02 - <Placeholder (P1)>	0	0	0	0	0	0	0
03 - Taxi	25927.2395	12246.7035	24901.6315	162849.864	1675.085	18065.785	49052.921
04 - Light Goods Vehicles<=2.5t	118.638	55.945	231.6945	599.607	56.389	186.898	331.576
05 - Lt Goods Vehicles 2.5-3.5t	5931.6735	2049.594	4753.395	16621.7375	779.495	3123.9115	4687.84
06 - Light Goods Vehicles>3.5t	3678.0785	1326.67	3142.472	10711.3275	480.965	2009.1075	3062.745
07 - Heavy Goods Vehicles<=15t	435.6175	958.04	856.1355	5201.8965	165.85	2324.6675	2703.88
08 - Heavy Goods Vehicles >15t	1690.608	3036.651	2746.394	15394.0805	480.965	6655.0735	7684.023
09 - <Placeholder (P2)>	0	0	0	0	0	0	0
10 - <Placeholder (P3)>	0	0	0	0	0	0	0
11 - Public Light Buses	3829.3545	1871.2735	4026.3765	9522.773	1033.2455	391.9615	2941.4335
12 - Private Light Bus <=3.5t	488.279	602.6335	913.6365	3850.545	56.389	853.509	853.005
13 - Private Light Bus >3.5t	214.5345	420.889	532.7305	2637.149	56.389	621.982	654.9245
14 - Non-franchised Bus<=6.4t	1278.154	384.6735	747.6265	7162.2345	82.925	890.0765	4615.4915
15 - Non-franchised Bus 6.4-15t	1059.298	277.119	679.459	5277.371	56.389	692.78	3415.9565
16 - Non-franchised Bus >15t	860.375	229.655	526.56	4380.577	56.389	522.1925	2864.877
17 - Franchised Bus (SD)	0	0	77.784	1383.551	0	0	0
18 - Franchised Bus (DD)	2421.06	1778.9535	3456.528	34596.468	0	1504.365	10408.296
19 - Motorcycles (MC)	2653.461	1601.881	3491.2965	13990.524	555.5975	2822.641	6021.7275
20 - <Placeholder (P4)>	0	0	0	0	0	0	0
21 - <Placeholder (P5)>	0	0	0	0	0	0	0

Year 2016	Adjusted Population Based on Scale Factor of VKT from Regional to Local for input to Emfac-HK						
Vehicular Type	Road Type 1	Road Type 2	Road Type 3	Road Type 4	Road Type 7	Road Type 8	Road Type 9
01 - Private Cars (PC)	1073.962771	835.6596058	1203.443133	7380.013215	134.6761042	1111.960658	3907.054361
02 - <Placeholder (P1)>	0	0	0	0	0	0	0
03 - Taxi	68.44239036	32.32868897	65.73500368	429.8889576	4.421867645	47.6898248	129.4892643
04 - Light Goods Vehicles<=2.5t	1.537573202	0.725058858	3.002809001	7.771031668	0.730813191	2.422237026	4.297294055
05 - Lt Goods Vehicles 2.5-3.5t	82.44591925	28.48785615	66.06871068	231.029983	10.83440986	43.42008293	65.15754417
06 - Light Goods Vehicles>3.5t	37.04844992	13.3632458	31.65340721	107.8927708	4.84465128	20.23728384	30.85033523
07 - Heavy Goods Vehicles<=15t	4.151581273	9.130443388	8.159259232	49.57582304	1.580606275	22.15486306	25.76888571
08 - Heavy Goods Vehicles >15t	16.13214265	28.97637248	26.20667819	146.8936044	4.589470765	63.50413288	73.3225888
09 - <Placeholder (P2)>	0	0	0	0	0	0	0
10 - <Placeholder (P3)>	0	0	0	0	0	0	0
11 - Public Light Buses	13.86983817	6.777711655	14.58344755	34.49127535	3.742392583	1.419675973	10.65380775
12 - Private Light Bus <=3.5t	7.430093241	9.170214356	13.90271624	58.59336236	0.858065835	12.98776202	12.9800927
13 - Private Light Bus >3.5t	3.260026479	6.395751195	8.095273889	40.07362718	0.856876787	9.451523133	9.952111254
14 - Non-franchised Bus<=6.4t	11.01402679	3.314783849	6.442399197	61.71794846	0.714575999	7.669910214	39.77231777
15 - Non-franchised Bus 6.4-15t	9.193750937	2.405142902	5.897091109	45.80281901	0.489405646	6.012705371	29.64742053
16 - Non-franchised Bus >15t	7.789416968	2.07918472	4.767218246	39.65961448	0.510518592	4.727677024	25.93720356
17 - Franchised Bus (SD)	0	0	0.497728688	8.853144917	0	0	0
18 - Franchised Bus (DD)	10.95796111	8.0517225	15.64459345	156.5870945	0	6.808907326	47.10899475
19 - Motorcycles (MC)	128.0579138	77.30791557	168.4924505	675.1926317	26.81353023	136.2226608	290.612849
20 - <Placeholder (P4)>	0	0	0	0	0	0	0
21 - <Placeholder (P5)>	0	0	0	0	0	0	0

Hourly Running Exhaust Emission Factors For Type 1 Roads From Burden Mode (Year 2016)

	Road Type 1		
	VKT	Nox	PM10
	Tonnes Per Day		
PC-TOT	29653	0.00149	0.00018
TAXI-TOT	25760	0.01784	0
LGV<=2.5t-TOT	154	0.00028	0.00004
LGV2.5-3.5t-TOT	5900	0.00695	0.00062
LGV>3.5t-TOT	3673	0.0105	0.00058
HGV<=15t-TOT	420	0.00142	0.00015
HGV>15t-TOT	1677	0.01072	0.00092
PLB-TOT	3865	0.0058	0.0006
PrLB<=3.5t-TOT	460	0.0001	0.00002
PrLB>3.5t-TOT	197	0.00023	0.00001
NFB<=6.4t-TOT	1277	0.00356	0.00032
NFB6.4-15t-TOT	1037	0.00536	0.00036
NFB>15t-TOT	884	0.00717	0.00043
FBSD-TOT	0	0	0
FBDD-TOT	2430	0.02779	0.00027
MC-TOT	2652	0.00125	0.00006
ALL-TOT	80039	0.10046	0.00454

	Road Type 1	
	Nox	PM10
	g/veh.km	g/veh.km
PC-TOT	0.050248	0.00607
TAXI-TOT	0.692547	0
LGV<=2.5t-TOT	1.818182	0.25974
LGV2.5-3.5t-TOT	1.177966	0.105085
LGV>3.5t-TOT	2.858699	0.157909
HGV<=15t-TOT	3.380952	0.357143
HGV>15t-TOT	6.392367	0.548599
PLB-TOT	1.500647	0.155239
PrLB<=3.5t-TOT	0.217391	0.043478
PrLB>3.5t-TOT	1.167513	0.050761
NFB<=6.4t-TOT	2.787784	0.250587
NFB6.4-15t-TOT	5.168756	0.347155
NFB>15t-TOT	8.11086	0.486425
FBSD-TOT	0.0000	0.0000
FBDD-TOT	11.43621	0.111111
MC-TOT	0.471342	0.022624

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 00 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0447	0.6761	1.8	1.1799	2.8421	3.3763	6.3539	1.4667	0.2095	1.1414	2.7749	5.1381	8.0718	6.6935	11.3649	0.4046
Type 3	0.0416	0.6339	1.6614	1.0928	2.4993	2.9703	5.5969	1.4469	0.1959	1.0585	2.4257	4.4836	7.0387	5.8403	9.9936	0.3925
Type 4	0.0365	0.5621	1.4687	0.9688	2.261	2.6844	5.1228	1.4863	0.1736	1.0006	2.1706	3.9563	6.1774	5.1572	9.3718	0.3742
Type 7	0.0313	0.4738	1.4993	0.9635	1.9779	2.3432	4.5876	1.627	0.1515	0.9556	1.8571	3.2842	5.0665	4.2881	8.7925	0.3651
Type 8	0.0316	0.4672	1.686	1.0676	1.9536	2.3136	4.5547	1.6864	0.1535	0.9644	1.8239	3.2028	4.9267	4.1832	8.8083	0.3718
Type 9	0.0363	0.494	2.5966	1.6218	2.0428	2.4194	4.7754	1.834	0.1798	1.0301	1.8965	3.3176	5.0953	4.3336	9.2557	0.4027

Hour 00 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0059	0	0.2307	0.1033	0.1535	0.3422	0.5314	0.15	0.033	0.0693	0.2432	0.3426	0.4698	0.0551	0.1072	0.0174
Type 3	0.0048	0	0.2034	0.0911	0.1212	0.2666	0.4095	0.1135	0.0281	0.0583	0.1939	0.285	0.368	0.048	0.083	0.0147
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.1021	0.0457	0.0717	0.1415	0.2153	0.0629	0.0129	0.0467	0.1383	0.2371	0.2399	0.0463	0.0524	0.0074
Type 8	0.0018	0	0.0929	0.0416	0.0755	0.1439	0.2234	0.0697	0.0119	0.0518	0.1566	0.2712	0.2685	0.0534	0.0588	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 01 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0445	0.6724	1.7939	1.1762	2.833	3.3656	6.3336	1.4591	0.2084	1.1366	2.7661	5.1217	8.0461	6.6722	11.3287	0.4022
Type 3	0.0408	0.6228	1.6323	1.0745	2.4501	2.9118	5.4934	1.4399	0.1924	1.0432	2.374	4.3819	6.8753	5.7081	9.8279	0.388
Type 4	0.0363	0.5591	1.4637	0.9657	2.2538	2.6758	5.1065	1.4783	0.1727	0.9962	2.1637	3.9437	6.1577	5.1408	9.3419	0.3719
Type 7	0.0311	0.47	1.5081	0.9679	1.9673	2.3306	4.566	1.6238	0.1506	0.9514	1.8461	3.2618	5.0304	4.2591	8.7608	0.3634
Type 8	0.0314	0.4646	1.6801	1.0642	1.9474	2.3062	4.5402	1.6771	0.1527	0.9599	1.8181	3.1926	4.911	4.1699	8.7802	0.3696
Type 9	0.0361	0.4914	2.5874	1.6166	2.0363	2.4117	4.7602	1.8239	0.1789	1.0252	1.8905	3.3071	5.0791	4.3198	9.2262	0.4002

Hour 01 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0059	0	0.2307	0.1033	0.1535	0.3422	0.5314	0.15	0.033	0.0693	0.2432	0.3426	0.4698	0.0551	0.1072	0.0174
Type 3	0.0046	0	0.1986	0.0889	0.1159	0.2544	0.3898	0.1076	0.0273	0.0565	0.1859	0.2754	0.3515	0.0468	0.0792	0.0142
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.101	0.0452	0.0718	0.1411	0.2151	0.0632	0.0127	0.0471	0.1396	0.2397	0.2416	0.0469	0.0528	0.0073
Type 8	0.0018	0	0.0929	0.0416	0.0755	0.1439	0.2234	0.0697	0.0119	0.0518	0.1566	0.2712	0.2685	0.0534	0.0588	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 02 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0438	0.6635	1.7632	1.157	2.7466	3.2634	6.1392	1.452	0.2055	1.1163	2.6793	4.9625	7.7968	6.4644	10.9623	0.3996
Type 3	0.0408	0.6228	1.6323	1.0745	2.4501	2.9118	5.4934	1.4399	0.1924	1.0432	2.374	4.3819	6.8753	5.7081	9.8279	0.388
Type 4	0.0363	0.5591	1.4637	0.9657	2.2538	2.6758	5.1065	1.4783	0.1727	0.9962	2.1637	3.9437	6.1577	5.1408	9.3419	0.3719
Type 7	0.0311	0.47	1.5081	0.9679	1.9673	2.3306	4.566	1.6238	0.1506	0.9514	1.8461	3.2618	5.0304	4.2591	8.7608	0.3634
Type 8	0.0315	0.4646	1.7048	1.0784	1.9472	2.306	4.5415	1.6833	0.1532	0.9615	1.817	3.189	4.9045	4.1654	8.7882	0.3705
Type 9	0.0361	0.4914	2.5874	1.6166	2.0363	2.4117	4.7602	1.8239	0.1789	1.0252	1.8905	3.3071	5.0791	4.3198	9.2262	0.4002

Hour 02 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0057	0	0.2248	0.1006	0.1463	0.3252	0.5039	0.1417	0.032	0.0668	0.2321	0.3298	0.4468	0.0535	0.1017	0.0168
Type 3	0.0046	0	0.1986	0.0889	0.1159	0.2544	0.3898	0.1076	0.0273	0.0565	0.1859	0.2754	0.3515	0.0468	0.0792	0.0142
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.101	0.0452	0.0718	0.1411	0.2151	0.0632	0.0127	0.0471	0.1396	0.2397	0.2416	0.0469	0.0528	0.0073
Type 8	0.0018	0	0.0923	0.0413	0.0762	0.1449	0.2254	0.0708	0.0119	0.0524	0.1592	0.2756	0.2727	0.0543	0.0598	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 03 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0438	0.6635	1.7632	1.157	2.7466	3.2634	6.1392	1.452	0.2055	1.1163	2.6793	4.9625	7.7968	6.4644	10.9623	0.3996
Type 3	0.0408	0.6228	1.6323	1.0745	2.4501	2.9118	5.4934	1.4399	0.1924	1.0432	2.374	4.3819	6.8753	5.7081	9.8279	0.388
Type 4	0.0363	0.5591	1.4637	0.9657	2.2538	2.6758	5.1065	1.4783	0.1727	0.9962	2.1637	3.9437	6.1577	5.1408	9.3419	0.3719
Type 7	0.0311	0.47	1.5081	0.9679	1.9673	2.3306	4.566	1.6238	0.1506	0.9514	1.8461	3.2618	5.0304	4.2591	8.7608	0.3634
Type 8	0.0315	0.4646	1.7048	1.0784	1.9472	2.306	4.5415	1.6833	0.1532	0.9615	1.817	3.189	4.9045	4.1654	8.7882	0.3705
Type 9	0.0361	0.4914	2.5874	1.6166	2.0363	2.4117	4.7602	1.8239	0.1789	1.0252	1.8905	3.3071	5.0791	4.3198	9.2262	0.4002

Hour 03 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0057	0	0.2248	0.1006	0.1463	0.3252	0.5039	0.1417	0.032	0.0668	0.2321	0.3298	0.4468	0.0535	0.1017	0.0168
Type 3	0.0046	0	0.1986	0.0889	0.1159	0.2544	0.3898	0.1076	0.0273	0.0565	0.1859	0.2754	0.3515	0.0468	0.0792	0.0142
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.101	0.0452	0.0718	0.1411	0.2151	0.0632	0.0127	0.0471	0.1396	0.2397	0.2416	0.0469	0.0528	0.0073
Type 8	0.0018	0	0.0923	0.0413	0.0762	0.1449	0.2254	0.0708	0.0119	0.0524	0.1592	0.2756	0.2727	0.0543	0.0598	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 04 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0438	0.6635	1.7632	1.157	2.7466	3.2634	6.1392	1.452	0.2055	1.1163	2.6793	4.9625	7.7968	6.4644	10.9623	0.3996
Type 3	0.0408	0.6228	1.6323	1.0745	2.4501	2.9118	5.4934	1.4399	0.1924	1.0432	2.374	4.3819	6.8753	5.7081	9.8279	0.388
Type 4	0.0363	0.5591	1.4637	0.9657	2.2538	2.6758	5.1065	1.4783	0.1727	0.9962	2.1637	3.9437	6.1577	5.1408	9.3419	0.3719
Type 7	0.0311	0.47	1.5081	0.9679	1.9673	2.3306	4.566	1.6238	0.1506	0.9514	1.8461	3.2618	5.0304	4.2591	8.7608	0.3634
Type 8	0.0315	0.4646	1.7048	1.0784	1.9472	2.306	4.5415	1.6833	0.1532	0.9615	1.817	3.189	4.9045	4.1654	8.7882	0.3705
Type 9	0.0361	0.4914	2.5874	1.6166	2.0363	2.4117	4.7602	1.8239	0.1789	1.0252	1.8905	3.3071	5.0791	4.3198	9.2262	0.4002

Hour 04 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0057	0	0.2248	0.1006	0.1463	0.3252	0.5039	0.1417	0.032	0.0668	0.2321	0.3298	0.4468	0.0535	0.1017	0.0168
Type 3	0.0046	0	0.1986	0.0889	0.1159	0.2544	0.3898	0.1076	0.0273	0.0565	0.1859	0.2754	0.3515	0.0468	0.0792	0.0142
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.101	0.0452	0.0718	0.1411	0.2151	0.0632	0.0127	0.0471	0.1396	0.2397	0.2416	0.0469	0.0528	0.0073
Type 8	0.0018	0	0.0923	0.0413	0.0762	0.1449	0.2254	0.0708	0.0119	0.0524	0.1592	0.2756	0.2727	0.0543	0.0598	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 05 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0438	0.6635	1.7632	1.157	2.7466	3.2634	6.1392	1.452	0.2055	1.1163	2.6793	4.9625	7.7968	6.4644	10.9623	0.3996
Type 3	0.0408	0.6228	1.6323	1.0745	2.4501	2.9118	5.4934	1.4399	0.1924	1.0432	2.374	4.3819	6.8753	5.7081	9.8279	0.388
Type 4	0.0363	0.5591	1.4637	0.9657	2.2538	2.6758	5.1065	1.4783	0.1727	0.9962	2.1637	3.9437	6.1577	5.1408	9.3419	0.3719
Type 7	0.0311	0.47	1.5081	0.9679	1.9673	2.3306	4.566	1.6238	0.1506	0.9514	1.8461	3.2618	5.0304	4.2591	8.7608	0.3634
Type 8	0.0315	0.4646	1.7048	1.0784	1.9472	2.306	4.5415	1.6833	0.1532	0.9615	1.817	3.189	4.9045	4.1654	8.7882	0.3705
Type 9	0.0361	0.4914	2.5874	1.6166	2.0363	2.4117	4.7602	1.8239	0.1789	1.0252	1.8905	3.3071	5.0791	4.3198	9.2262	0.4002

Hour 05 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0057	0	0.2248	0.1006	0.1463	0.3252	0.5039	0.1417	0.032	0.0668	0.2321	0.3298	0.4468	0.0535	0.1017	0.0168
Type 3	0.0046	0	0.1986	0.0889	0.1159	0.2544	0.3898	0.1076	0.0273	0.0565	0.1859	0.2754	0.3515	0.0468	0.0792	0.0142
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.101	0.0452	0.0718	0.1411	0.2151	0.0632	0.0127	0.0471	0.1396	0.2397	0.2416	0.0469	0.0528	0.0073
Type 8	0.0018	0	0.0923	0.0413	0.0762	0.1449	0.2254	0.0708	0.0119	0.0524	0.1592	0.2756	0.2727	0.0543	0.0598	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 06 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0438	0.6635	1.7632	1.157	2.7466	3.2634	6.1392	1.452	0.2055	1.1163	2.6793	4.9625	7.7968	6.4644	10.9623	0.3996
Type 3	0.0408	0.6228	1.6323	1.0745	2.4501	2.9118	5.4934	1.4399	0.1924	1.0432	2.374	4.3819	6.8753	5.7081	9.8279	0.388
Type 4	0.0363	0.5591	1.4637	0.9657	2.2538	2.6758	5.1065	1.4783	0.1727	0.9962	2.1637	3.9437	6.1577	5.1408	9.3419	0.3719
Type 7	0.0311	0.47	1.5081	0.9679	1.9673	2.3306	4.566	1.6238	0.1506	0.9514	1.8461	3.2618	5.0304	4.2591	8.7608	0.3634
Type 8	0.0315	0.4646	1.7048	1.0784	1.9472	2.306	4.5415	1.6833	0.1532	0.9615	1.817	3.189	4.9045	4.1654	8.7882	0.3705
Type 9	0.0361	0.4914	2.5874	1.6166	2.0363	2.4117	4.7602	1.8239	0.1789	1.0252	1.8905	3.3071	5.0791	4.3198	9.2262	0.4002

Hour 06 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0057	0	0.2248	0.1006	0.1463	0.3252	0.5039	0.1417	0.032	0.0668	0.2321	0.3298	0.4468	0.0535	0.1017	0.0168
Type 3	0.0046	0	0.1986	0.0889	0.1159	0.2544	0.3898	0.1076	0.0273	0.0565	0.1859	0.2754	0.3515	0.0468	0.0792	0.0142
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.101	0.0452	0.0718	0.1411	0.2151	0.0632	0.0127	0.0471	0.1396	0.2397	0.2416	0.0469	0.0528	0.0073
Type 8	0.0018	0	0.0923	0.0413	0.0762	0.1449	0.2254	0.0708	0.0119	0.0524	0.1592	0.2756	0.2727	0.0543	0.0598	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 07 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0447	0.6761	1.8	1.1799	2.8421	3.3763	6.3539	1.4667	0.2095	1.1414	2.7749	5.1381	8.0718	6.6935	11.3649	0.4046
Type 3	0.0416	0.6339	1.6614	1.0928	2.4993	2.9703	5.5969	1.4469	0.1959	1.0585	2.4257	4.4836	7.0387	5.8403	9.9936	0.3925
Type 4	0.0365	0.5621	1.4687	0.9688	2.261	2.6844	5.1228	1.4863	0.1736	1.0006	2.1706	3.9563	6.1774	5.1572	9.3718	0.3742
Type 7	0.0313	0.4738	1.4993	0.9635	1.9779	2.3432	4.5876	1.627	0.1515	0.9556	1.8571	3.2842	5.0665	4.2881	8.7925	0.3651
Type 8	0.0316	0.4672	1.686	1.0676	1.9536	2.3136	4.5547	1.6864	0.1535	0.9644	1.8239	3.2028	4.9267	4.1832	8.8083	0.3718
Type 9	0.0363	0.494	2.5966	1.6218	2.0428	2.4194	4.7754	1.834	0.1798	1.0301	1.8965	3.3176	5.0953	4.3336	9.2557	0.4027

Hour 07 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0059	0	0.2307	0.1033	0.1535	0.3422	0.5314	0.15	0.033	0.0693	0.2432	0.3426	0.4698	0.0551	0.1072	0.0174
Type 3	0.0048	0	0.2034	0.0911	0.1212	0.2666	0.4095	0.1135	0.0281	0.0583	0.1939	0.285	0.368	0.048	0.083	0.0147
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.1021	0.0457	0.0717	0.1415	0.2153	0.0629	0.0129	0.0467	0.1383	0.2371	0.2399	0.0463	0.0524	0.0074
Type 8	0.0018	0	0.0929	0.0416	0.0755	0.1439	0.2234	0.0697	0.0119	0.0518	0.1566	0.2712	0.2685	0.0534	0.0588	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 08 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0469	0.7062	1.8857	1.2331	3.0717	3.6478	6.8747	1.5086	0.2192	1.2028	3.0031	5.5533	8.7198	7.2356	12.3571	0.4177
Type 3	0.0434	0.6604	1.73	1.1358	2.6342	3.1304	5.8899	1.4731	0.2043	1.0998	2.5639	4.7472	7.4574	6.1834	10.5016	0.4042
Type 4	0.0383	0.5885	1.5232	1.0041	2.3323	2.7697	5.2688	1.4972	0.1817	1.0248	2.2447	4.1061	6.4201	5.3514	9.5791	0.385
Type 7	0.0319	0.4828	1.5017	0.9657	2.0015	2.3713	4.6394	1.648	0.154	0.9687	1.8806	3.3284	5.1366	4.3456	8.8815	0.3713
Type 8	0.0319	0.4755	1.6356	1.0392	1.9754	2.3396	4.5994	1.6956	0.1548	0.9738	1.847	3.2492	5.0018	4.2435	8.8753	0.376
Type 9	0.0368	0.502	2.624	1.6374	2.0623	2.4425	4.8211	1.8644	0.1826	1.0447	1.9146	3.3494	5.1441	4.3751	9.3442	0.4099

Hour 08 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0036	0	0.1694	0.0758	0.1003	0.218	0.3315	0.0905	0.0224	0.0511	0.1625	0.2476	0.3032	0.0434	0.0678	0.0116
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0953	0.0426	0.0737	0.1418	0.2186	0.0668	0.0121	0.0499	0.1498	0.259	0.2574	0.0509	0.0563	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 09 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0464	0.6992	1.8737	1.2257	3.0534	3.6261	6.8338	1.4861	0.2153	1.1906	2.9853	5.5203	8.6679	7.1926	12.2836	0.4094
Type 3	0.043	0.6539	1.719	1.129	2.6185	3.1118	5.8549	1.4504	0.2006	1.0881	2.5487	4.7189	7.413	6.1467	10.4392	0.3962
Type 4	0.0379	0.5826	1.5136	0.9981	2.3184	2.7533	5.2374	1.4735	0.1784	1.0133	2.2314	4.0816	6.3819	5.3195	9.5221	0.3773
Type 7	0.0315	0.478	1.492	0.9599	1.9896	2.3572	4.6118	1.6211	0.1513	0.9567	1.8694	3.3086	5.106	4.3198	8.8286	0.3638
Type 8	0.0316	0.4708	1.625	1.0329	1.9636	2.3256	4.572	1.6678	0.1521	0.9616	1.836	3.2299	4.9721	4.2183	8.8225	0.3684
Type 9	0.0365	0.4971	2.6068	1.6275	2.05	2.428	4.7924	1.8336	0.1796	1.0313	1.9033	3.3294	5.1135	4.349	9.2886	0.4017

Hour 09 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0036	0	0.1694	0.0758	0.1003	0.218	0.3315	0.0905	0.0224	0.0511	0.1625	0.2476	0.3032	0.0434	0.0678	0.0116
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0953	0.0426	0.0737	0.1418	0.2186	0.0668	0.0121	0.0499	0.1498	0.259	0.2574	0.0509	0.0563	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 10 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0461	0.6937	1.8627	1.2188	3.0364	3.606	6.7957	1.4657	0.2118	1.1794	2.9687	5.4896	8.6196	7.1525	12.2152	0.4021
Type 3	0.0421	0.6406	1.6828	1.1061	2.5446	3.0241	5.693	1.4274	0.1948	1.0628	2.4733	4.5764	7.1872	5.961	10.1539	0.3868
Type 4	0.0372	0.5722	1.4907	0.9833	2.2887	2.7178	5.1755	1.4563	0.1738	0.999	2.201	4.0212	6.2845	5.2411	9.4291	0.3691
Type 7	0.0313	0.4743	1.4832	0.9545	1.9785	2.3441	4.5862	1.5968	0.1489	0.9458	1.859	3.2902	5.0776	4.2957	8.7795	0.3571
Type 8	0.0314	0.4667	1.6366	1.0391	1.9513	2.311	4.5454	1.6486	0.15	0.9516	1.8235	3.2059	4.9338	4.187	8.7779	0.3624
Type 9	0.0362	0.4932	2.5913	1.6183	2.0386	2.4145	4.7657	1.8059	0.177	1.0191	1.8927	3.3109	5.085	4.3248	9.2369	0.3942

Hour 10 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 11 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0466	0.7024	1.8773	1.2277	3.0585	3.6321	6.845	1.4829	0.2144	1.1906	2.9902	5.5294	8.6822	7.2044	12.3038	0.4076
Type 3	0.0426	0.6487	1.6959	1.1142	2.563	3.046	5.7343	1.4446	0.1972	1.0731	2.4913	4.6096	7.2394	6.0042	10.2276	0.3921
Type 4	0.0376	0.5794	1.5023	0.9904	2.3053	2.7375	5.213	1.4741	0.1759	1.009	2.2169	4.0504	6.3301	5.2791	9.4975	0.3742
Type 7	0.0317	0.4802	1.495	0.9615	1.9928	2.3611	4.6194	1.6167	0.1507	0.9557	1.8725	3.3141	5.1144	4.3269	8.8432	0.362
Type 8	0.0318	0.4726	1.6497	1.0467	1.9654	2.3277	4.5784	1.6693	0.1519	0.9618	1.8367	3.2291	4.9696	4.2174	8.8416	0.3673
Type 9	0.0366	0.4994	2.6121	1.6301	2.0534	2.432	4.8003	1.8285	0.1791	1.0301	1.9064	3.3349	5.1219	4.3562	9.3039	0.3996

Hour 11 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 12 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0452	0.6814	1.8198	1.1914	2.9169	3.4646	6.524	1.4439	0.2058	1.1477	2.8501	5.2744	8.2842	6.8716	11.6953	0.3955
Type 3	0.0419	0.6381	1.6746	1.1004	2.5316	3.0086	5.664	1.4158	0.1921	1.0557	2.4607	4.553	7.1506	5.9306	10.1021	0.3832
Type 4	0.037	0.5699	1.4834	0.9782	2.277	2.7039	5.1491	1.4444	0.1714	0.9922	2.1897	4.0007	6.2525	5.2144	9.381	0.3657
Type 7	0.0312	0.4724	1.4761	0.9496	1.9684	2.3321	4.5628	1.5835	0.1468	0.939	1.8495	3.2734	5.0517	4.2738	8.7347	0.3538
Type 8	0.0313	0.4648	1.6288	1.0338	1.9413	2.2992	4.5222	1.6348	0.148	0.9448	1.8142	3.1895	4.9087	4.1657	8.7331	0.359
Type 9	0.0361	0.4912	2.579	1.6099	2.0282	2.4021	4.7414	1.7907	0.1748	1.0117	1.883	3.294	5.059	4.3028	9.1898	0.3905

Hour 12 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0062	0	0.2368	0.106	0.1612	0.3602	0.5606	0.1587	0.0342	0.0718	0.2548	0.3561	0.494	0.0567	0.1129	0.018
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 13 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0462	0.6957	1.8614	1.2172	3.0327	3.6015	6.7873	1.4633	0.2102	1.1777	2.965	5.4827	8.609	7.1437	12.2001	0.4013
Type 3	0.0422	0.6424	1.6816	1.1047	2.5414	3.0203	5.686	1.425	0.1934	1.0612	2.4703	4.5707	7.1783	5.9536	10.1413	0.386
Type 4	0.0373	0.5738	1.4896	0.982	2.2859	2.7144	5.1691	1.4539	0.1725	0.9975	2.1982	4.0162	6.2767	5.2346	9.4174	0.3684
Type 7	0.0314	0.4756	1.4824	0.9533	1.976	2.3412	4.5805	1.5941	0.1478	0.9443	1.8567	3.2861	5.0713	4.2904	8.7686	0.3564
Type 8	0.0315	0.468	1.6358	1.0378	1.9488	2.3081	4.5397	1.6458	0.149	0.9502	1.8213	3.2019	4.9277	4.1818	8.767	0.3616
Type 9	0.0363	0.4945	2.5902	1.6162	2.0361	2.4115	4.7598	1.8028	0.1759	1.0175	1.8903	3.3068	5.0787	4.3195	9.2255	0.3934

Hour 13 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 14 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0459	0.691	1.8536	1.2125	3.021	3.5876	6.7611	1.4541	0.2089	1.1718	2.9535	5.4615	8.5757	7.116	12.1529	0.3983
Type 3	0.0425	0.6462	1.7006	1.1168	2.5906	3.0787	5.7926	1.4183	0.1947	1.0703	2.5215	4.6687	7.3341	6.0812	10.3281	0.3854
Type 4	0.037	0.5699	1.4834	0.9782	2.277	2.7039	5.1491	1.4444	0.1714	0.9922	2.1897	4.0007	6.2525	5.2144	9.381	0.3657
Type 7	0.0312	0.4738	1.4641	0.9432	1.9734	2.3382	4.5714	1.578	0.147	0.939	1.8555	3.2869	5.0743	4.2912	8.7407	0.3535
Type 8	0.0313	0.4646	1.6511	1.0464	1.9403	2.2979	4.5218	1.6408	0.1484	0.9461	1.8123	3.1843	4.8995	4.159	8.7388	0.3598
Type 9	0.0361	0.4912	2.579	1.6099	2.0282	2.4021	4.7414	1.7907	0.1748	1.0117	1.883	3.294	5.059	4.3028	9.1898	0.3905

Hour 14 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1045	0.0468	0.0717	0.1426	0.2163	0.0624	0.0131	0.0461	0.1362	0.2325	0.237	0.0452	0.0518	0.0074
Type 8	0.0018	0	0.0937	0.0419	0.0749	0.1431	0.2216	0.0687	0.012	0.0511	0.1542	0.2669	0.2646	0.0525	0.0579	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 15 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0456	0.6862	1.8459	1.2078	3.0092	3.5736	6.7348	1.4449	0.2075	1.1659	2.942	5.4403	8.5424	7.0884	12.1057	0.3954
Type 3	0.0422	0.6418	1.6935	1.1125	2.5806	3.0667	5.7701	1.4092	0.1934	1.0647	2.5117	4.6506	7.3057	6.0576	10.288	0.3826
Type 4	0.0368	0.566	1.4772	0.9744	2.2682	2.6934	5.1291	1.4349	0.1702	0.9869	2.1812	3.9852	6.2282	5.1941	9.3446	0.363
Type 7	0.031	0.4705	1.4579	0.9396	1.9657	2.3291	4.5537	1.5675	0.146	0.9337	1.8483	3.2741	5.0546	4.2746	8.7067	0.3509
Type 8	0.031	0.4617	1.6219	1.0297	1.9338	2.2902	4.5046	1.6238	0.1471	0.9394	1.8072	3.1771	4.8896	4.1495	8.6992	0.3563
Type 9	0.0358	0.4878	2.5679	1.6036	2.0203	2.3928	4.723	1.7786	0.1737	1.0059	1.8757	3.2812	5.0394	4.286	9.1541	0.3877

Hour 15 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1045	0.0468	0.0717	0.1426	0.2163	0.0624	0.0131	0.0461	0.1362	0.2325	0.237	0.0452	0.0518	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 16 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0461	0.6937	1.8627	1.2188	3.0364	3.606	6.7957	1.4657	0.2118	1.1794	2.9687	5.4896	8.6196	7.1525	12.2152	0.4021
Type 3	0.0427	0.6488	1.709	1.1226	2.6039	3.0945	5.8223	1.4299	0.1974	1.0774	2.5345	4.6926	7.3717	6.1124	10.381	0.389
Type 4	0.0372	0.5722	1.4907	0.9833	2.2887	2.7178	5.1755	1.4563	0.1738	0.999	2.201	4.0212	6.2845	5.2411	9.4291	0.3691
Type 7	0.0313	0.4757	1.4711	0.9481	1.9835	2.3502	4.5948	1.5913	0.149	0.9458	1.865	3.3037	5.1003	4.3132	8.7855	0.3568
Type 8	0.0314	0.4667	1.6366	1.0391	1.9513	2.311	4.5454	1.6486	0.15	0.9516	1.8235	3.2059	4.9338	4.187	8.7779	0.3624
Type 9	0.0362	0.4932	2.5913	1.6183	2.0386	2.4145	4.7657	1.8059	0.177	1.0191	1.8927	3.3109	5.085	4.3248	9.2369	0.3942

Hour 16 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1045	0.0468	0.0717	0.1426	0.2163	0.0624	0.0131	0.0461	0.1362	0.2325	0.237	0.0452	0.0518	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 17 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0452	0.6806	1.8409	1.2055	3.0034	3.5667	6.7218	1.4399	0.2079	1.1627	2.9363	5.4298	8.5258	7.0747	12.0823	0.3938
Type 3	0.0419	0.6365	1.6889	1.1103	2.5756	3.0608	5.7589	1.4041	0.1937	1.0618	2.5069	4.6416	7.2915	6.0459	10.2681	0.3811
Type 4	0.0365	0.5614	1.4733	0.9725	2.2638	2.6882	5.1192	1.4297	0.1705	0.984	2.177	3.9774	6.2161	5.1841	9.3265	0.3615
Type 7	0.0308	0.4667	1.4537	0.9378	1.9619	2.3246	4.5448	1.5616	0.1463	0.9309	1.8447	3.2678	5.0448	4.2663	8.6899	0.3495
Type 8	0.0307	0.4583	1.5961	1.0159	1.9314	2.2875	4.4971	1.6119	0.147	0.9353	1.8059	3.1769	4.8906	4.1491	8.6779	0.3542
Type 9	0.0355	0.4839	2.56	1.6006	2.0164	2.3882	4.7138	1.7719	0.1739	1.0027	1.8721	3.2749	5.0297	4.2777	9.1364	0.3861

Hour 17 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1045	0.0468	0.0717	0.1426	0.2163	0.0624	0.0131	0.0461	0.1362	0.2325	0.237	0.0452	0.0518	0.0074
Type 8	0.0018	0	0.0953	0.0426	0.0737	0.1418	0.2186	0.0668	0.0121	0.0499	0.1498	0.259	0.2574	0.0509	0.0563	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 18 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0462	0.6952	1.8668	1.2215	3.0431	3.6139	6.8106	1.4779	0.214	1.1853	2.9752	5.5016	8.6385	7.1682	12.242	0.4068
Type 3	0.0428	0.6502	1.7127	1.1251	2.6096	3.1013	5.8351	1.4423	0.1995	1.0832	2.54	4.7029	7.3879	6.1258	10.4038	0.3937
Type 4	0.0377	0.5793	1.5081	0.9947	2.3105	2.7439	5.2197	1.4652	0.1774	1.0086	2.2238	4.0678	6.3603	5.3015	9.4899	0.3749
Type 7	0.0314	0.4767	1.4744	0.9503	1.9879	2.3553	4.6049	1.6061	0.1505	0.952	1.8691	3.311	5.1115	4.3227	8.8048	0.3612
Type 8	0.0314	0.4681	1.6189	1.0294	1.957	2.3178	4.5566	1.6581	0.1512	0.9568	1.8298	3.2189	4.9553	4.204	8.7926	0.3661
Type 9	0.0363	0.4942	2.597	1.622	2.0431	2.4198	4.7762	1.8229	0.1787	1.0261	1.8968	3.3182	5.0961	4.3343	9.2572	0.3991

Hour 18 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0036	0	0.1694	0.0758	0.1003	0.218	0.3315	0.0905	0.0224	0.0511	0.1625	0.2476	0.3032	0.0434	0.0678	0.0116
Type 7	0.0019	0	0.1045	0.0468	0.0717	0.1426	0.2163	0.0624	0.0131	0.0461	0.1362	0.2325	0.237	0.0452	0.0518	0.0074
Type 8	0.0018	0	0.0953	0.0426	0.0737	0.1418	0.2186	0.0668	0.0121	0.0499	0.1498	0.259	0.2574	0.0509	0.0563	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 19 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0456	0.6871	1.8532	1.2132	3.0224	3.5893	6.7644	1.4617	0.2115	1.1748	2.955	5.4642	8.5799	7.1195	12.1588	0.4016
Type 3	0.0423	0.6426	1.7002	1.1174	2.5919	3.0802	5.7954	1.4261	0.1972	1.0734	2.5228	4.671	7.3377	6.0842	10.3331	0.3887
Type 4	0.0368	0.5667	1.4831	0.9788	2.2782	2.7052	5.1516	1.4526	0.1736	0.9954	2.1908	4.0026	6.2555	5.2169	9.3856	0.3688
Type 7	0.031	0.4711	1.4635	0.9438	1.9744	2.3393	4.5736	1.5874	0.1488	0.9426	1.8564	3.2885	5.0768	4.2933	8.745	0.3566
Type 8	0.0311	0.4623	1.628	1.0344	1.9423	2.3003	4.5244	1.6446	0.1498	0.9485	1.8151	3.1911	4.9111	4.1677	8.7374	0.3621
Type 9	0.0359	0.4884	2.5775	1.6109	2.0292	2.4033	4.7437	1.8015	0.1767	1.0158	1.8839	3.2956	5.0615	4.3049	9.1943	0.394

Hour 19 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.0052	0	0.2137	0.0957	0.1329	0.294	0.4535	0.1266	0.03	0.0623	0.2118	0.306	0.4048	0.0506	0.0918	0.0157
Type 4	0.0035	0	0.1658	0.0742	0.0985	0.2135	0.3244	0.0884	0.0219	0.0505	0.1598	0.2445	0.2976	0.043	0.0664	0.0113
Type 7	0.0019	0	0.1045	0.0468	0.0717	0.1426	0.2163	0.0624	0.0131	0.0461	0.1362	0.2325	0.237	0.0452	0.0518	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 20 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0454	0.683	1.8463	1.209	3.0121	3.577	6.7412	1.4535	0.2103	1.1696	2.9448	5.4455	8.5505	7.0952	12.1172	0.399
Type 3	0.0414	0.6308	1.668	1.0972	2.5241	2.9998	5.6474	1.4155	0.1934	1.0539	2.4535	4.5397	7.1296	5.9132	10.0725	0.3839
Type 4	0.0359	0.5525	1.4529	0.959	2.2383	2.6574	5.0714	1.4525	0.1693	0.9835	2.1488	3.9166	6.1154	5.1055	9.2777	0.3639
Type 7	0.0308	0.4669	1.47	0.9469	1.9626	2.3253	4.5494	1.5835	0.1478	0.9379	1.8441	3.2638	5.0369	4.2613	8.7091	0.3546
Type 8	0.0309	0.4595	1.6219	1.0308	1.9356	2.2924	4.5089	1.6349	0.149	0.9437	1.8089	3.1801	4.8943	4.1535	8.7075	0.3598
Type 9	0.0357	0.4856	2.5677	1.6053	2.0223	2.3951	4.7275	1.7908	0.1757	1.0106	1.8775	3.2843	5.0442	4.2901	9.1628	0.3914

Hour 20 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0064	0	0.2432	0.1089	0.1693	0.3792	0.5913	0.1679	0.0354	0.0745	0.2671	0.3703	0.5196	0.0583	0.119	0.0187
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0945	0.0423	0.0742	0.1424	0.22	0.0677	0.0121	0.0505	0.1519	0.2629	0.2609	0.0517	0.0571	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 21 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0446	0.6736	1.8126	1.188	2.9083	3.4545	6.5049	1.4433	0.2072	1.1456	2.8417	5.2589	8.2599	6.8514	11.661	0.3962
Type 3	0.0414	0.6308	1.668	1.0972	2.5241	2.9998	5.6474	1.4155	0.1934	1.0539	2.4535	4.5397	7.1296	5.9132	10.0725	0.3839
Type 4	0.0359	0.5525	1.4529	0.959	2.2383	2.6574	5.0714	1.4525	0.1693	0.9835	2.1488	3.9166	6.1154	5.1055	9.2777	0.3639
Type 7	0.0308	0.4669	1.47	0.9469	1.9626	2.3253	4.5494	1.5835	0.1478	0.9379	1.8441	3.2638	5.0369	4.2613	8.7091	0.3546
Type 8	0.031	0.4593	1.6441	1.0434	1.9346	2.2912	4.5085	1.6408	0.1494	0.945	1.807	3.175	4.8851	4.1468	8.7131	0.3606
Type 9	0.0357	0.4856	2.5677	1.6053	2.0223	2.3951	4.7275	1.7908	0.1757	1.0106	1.8775	3.2843	5.0442	4.2901	9.1628	0.3914

Hour 21 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0062	0	0.2368	0.106	0.1612	0.3602	0.5606	0.1587	0.0342	0.0718	0.2548	0.3561	0.494	0.0567	0.1129	0.018
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.1033	0.0462	0.0717	0.142	0.2157	0.0626	0.013	0.0464	0.1372	0.2347	0.2383	0.0457	0.0521	0.0074
Type 8	0.0018	0	0.0937	0.0419	0.0749	0.1431	0.2216	0.0687	0.012	0.0511	0.1542	0.2669	0.2646	0.0525	0.0579	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hourly Running Exhaust Emission Factors For Type 2 to 9 Roads From Emfac Mode (Year 2016)

Hour 22 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0444	0.6696	1.8059	1.1839	2.8983	3.4426	6.4825	1.4352	0.206	1.1404	2.832	5.2409	8.2315	6.8279	11.6209	0.3936
Type 3	0.0412	0.627	1.6619	1.0935	2.5155	2.9895	5.628	1.4074	0.1923	1.0491	2.4451	4.5241	7.1051	5.8929	10.0379	0.3814
Type 4	0.0357	0.5492	1.4475	0.9557	2.2306	2.6483	5.054	1.4441	0.1683	0.9788	2.1415	3.9032	6.0944	5.088	9.2459	0.3615
Type 7	0.0306	0.4629	1.4774	0.9504	1.9513	2.3117	4.526	1.5796	0.1469	0.9333	1.8322	3.2401	4.9985	4.2305	8.6744	0.3527
Type 8	0.0308	0.4565	1.6379	1.0398	1.928	2.2833	4.4931	1.631	0.1485	0.9402	1.8008	3.1641	4.8683	4.1326	8.6832	0.3582
Type 9	0.0354	0.4827	2.5579	1.5998	2.0153	2.3869	4.7113	1.7801	0.1748	1.0055	1.871	3.2731	5.0269	4.2754	9.1314	0.3889

Hour 22 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0062	0	0.2368	0.106	0.1612	0.3602	0.5606	0.1587	0.0342	0.0718	0.2548	0.3561	0.494	0.0567	0.1129	0.018
Type 3	0.005	0	0.2085	0.0933	0.1269	0.2798	0.4307	0.1198	0.029	0.0603	0.2026	0.2952	0.3857	0.0493	0.0873	0.0152
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.1021	0.0457	0.0717	0.1415	0.2153	0.0629	0.0129	0.0467	0.1383	0.2371	0.2399	0.0463	0.0524	0.0074
Type 8	0.0018	0	0.0937	0.0419	0.0749	0.1431	0.2216	0.0687	0.012	0.0511	0.1542	0.2669	0.2646	0.0525	0.0579	0.0073
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095

Hour 23 NOX Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0441	0.6656	1.7992	1.1798	2.8884	3.4308	6.4602	1.4271	0.2048	1.1353	2.8222	5.2228	8.2032	6.8044	11.5809	0.3911
Type 3	0.0404	0.6156	1.6313	1.0743	2.4573	2.9203	5.5027	1.3983	0.1887	1.0316	2.3848	4.4081	6.9202	5.742	9.8254	0.3767
Type 4	0.0354	0.5459	1.4422	0.9524	2.223	2.6392	5.0366	1.4356	0.1673	0.9742	2.1341	3.8897	6.0734	5.0704	9.2141	0.3591
Type 7	0.0304	0.4601	1.4718	0.9472	1.9446	2.3038	4.5104	1.5701	0.146	0.9286	1.8259	3.2289	4.9812	4.2159	8.6445	0.3504
Type 8	0.0307	0.4537	1.6548	1.0495	1.9207	2.2747	4.478	1.6272	0.1481	0.9368	1.7932	3.1489	4.8438	4.1128	8.6601	0.3567
Type 9	0.0352	0.4798	2.5482	1.5943	2.0084	2.3787	4.695	1.7694	0.1738	1.0003	1.8646	3.2618	5.0096	4.2607	9.1	0.3863

Hour 23 RSP Running Exhaust Emissions (grams/km)

	01 - Private Cars (PC)	03 - Taxi	04 - Light Goods Vehicles<=2.5t	05 - Light Goods Vehicles 2.5-3.	06 - Light Goods Vehicles>3.5t	07 - Medium and Heavy Goods Vehi	08 - Medium and Heavy Goods Vehi	11 - Public Light Buses	12 - Private Light Buses <=3.5t	13 - Private Light Buses >3.5t	14 - Non-franchised Buses<=6.4t	15 - Non-franchised Buses 6.4-15	16 - Non-franchised Buses >15t	17 - Franchised Buses (SD)	18 - Franchised Buses (DD)	19 - Motorcycles (MC)
Type 2	0.0062	0	0.2368	0.106	0.1612	0.3602	0.5606	0.1587	0.0342	0.0718	0.2548	0.3561	0.494	0.0567	0.1129	0.018
Type 3	0.0048	0	0.2034	0.0911	0.1212	0.2666	0.4095	0.1135	0.0281	0.0583	0.1939	0.285	0.368	0.048	0.083	0.0147
Type 4	0.0033	0	0.1591	0.0712	0.0949	0.205	0.3109	0.0846	0.0208	0.0494	0.1548	0.2389	0.287	0.0424	0.0639	0.0108
Type 7	0.0019	0	0.1021	0.0457	0.0717	0.1415	0.2153	0.0629	0.0129	0.0467	0.1383	0.2371	0.2399	0.0463	0.0524	0.0074
Type 8	0.0018	0	0.0929	0.0416	0.0755	0.1439	0.2234	0.0697	0.0119	0.0518	0.1566	0.2712	0.2685	0.0534	0.0588	0.0074
Type 9	0.0022	0	0.0865	0.0382	0.1063	0.1959	0.3195	0.1115	0.0122	0.0739	0.2417	0.4102	0.4159	0.0796	0.0926	0.0095