

6.3. Energy consumption sensitivity to vehicle mass

Table 6.4 Table over simulation results of different vehicle mass for the City car.

Test Cycles	-300 (kg)		-200 (kg)		-100 (kg)		City base	+100 (kg)		+200 (kg)		+300 (kg)	
	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)
ECE	0.1	-20.7	0.1	-13.9	0.1	-7.0	0.2	0.2	7.1	0.2	14.2	0.2	21.4
WLTC Low	0.1	-21.5	0.1	-14.4	0.1	-7.3	0.1	0.1	7.4	0.1	14.8	0.2	22.3
jpj08	0.1	-16.6	0.2	-11.1	0.2	-5.6	0.2	0.2	5.6	0.2	11.3	0.3	17.1
FTP72UDDS	0.2	-17.0	0.2	-11.4	0.2	-5.7	0.2	0.2	5.8	0.3	11.6	0.3	17.5
WLTC Mdl	0.1	-16.7	0.1	-11.2	0.1	-5.6	0.1	0.2	5.7	0.2	11.4	0.2	17.2
SC03	0.2	-16.8	0.3	-11.3	0.3	-5.7	0.3	0.4	5.7	0.4	11.5	0.4	17.3
NYCC	0.2	-24.8	0.2	-16.7	0.2	-8.4	0.3	0.3	8.5	0.3	17.2	0.3	25.9
Artemis URBAN	0.3	-23.1	0.3	-15.5	0.3	-7.8	0.4	0.4	7.9	0.4	16.0	0.8	24.1
NEDC	0.2	-12.7	0.2	-8.5	0.2	-4.3	0.2	0.2	4.3	0.2	8.6	0.2	13.0
WLTC Hgh	0.1	-11.3	0.1	-7.6	0.1	-3.8	0.1	0.1	3.8	0.1	7.6	0.2	11.5
Artemis RURAL	0.3	-12.5	0.3	-8.4	0.3	-4.2	0.4	0.4	4.2	0.4	8.5	0.4	12.9
EUDC	0.1	-9.7	0.2	-6.5	0.2	-3.2	0.2	0.2	3.3	0.2	6.5	0.2	9.8
UCLA92	0.3	-14.3	0.3	-9.6	0.3	-4.8	0.3	0.4	4.9	0.5	9.9	1.1	15.0
HWFET	0.1	-9.0	0.1	-6.0	0.1	-3.0	0.1	0.1	3.0	0.2	6.1	0.2	9.1
REP05	0.4	-8.2	0.4	-5.5	0.9	-2.8	1.7	2.6	2.8	3.9	5.6	3.7	8.4
WLTC ExtrHgh	0.1	-6.5	0.1	-4.4	0.1	-2.2	0.1	0.1	2.2	0.2	4.4	0.2	6.7
US06	0.5	-8.8	0.8	-5.9	1.0	-3.0	1.6	2.4	3.0	3.4	5.9	3.9	8.7
Artemis MW130	0.3	-6.5	0.3	-4.4	0.4	-2.2	0.4	0.5	2.2	0.5	4.5	0.6	6.8

Table 6.5 Table over simulation results of different vehicle mass for the Highway car.

Test Cycles	-300 (kg)		-200 (kg)		-100 (kg)		Highway Base	+100 (kg)		+200 (kg)		+300 (kg)	
	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)	Max speed diff. (km/h)	Rel. Cons. (%)
ECE	0.1	-15.5	0.1	-10.4	0.1	-5.2	0.2	0.2	5.3	0.2	10.5	0.2	15.9
WLTC Low	0.2	-16.1	0.2	-10.7	0.2	-5.4	0.2	0.2	5.4	0.2	10.9	0.2	16.4
jpj08	0.2	-13.1	0.2	-8.8	0.2	-4.4	0.2	0.2	4.4	0.2	8.9	0.2	13.3
FTP72UDDS	0.2	-13.4	0.2	-8.9	0.2	-4.5	0.2	0.2	4.5	0.2	9.0	0.3	13.6
WLTC Mdl	0.2	-13.2	0.2	-8.8	0.2	-4.4	0.2	0.2	4.4	0.2	8.9	0.2	13.4
SC03	0.3	-13.3	0.3	-8.9	0.3	-4.4	0.3	0.4	4.5	0.4	9.0	0.4	13.5
NYCC	0.3	-17.9	0.3	-12.0	0.3	-6.0	0.3	0.4	6.1	0.4	12.2	0.4	18.4
Artemis URBAN	0.3	-17.0	0.3	-11.4	0.4	-5.7	0.4	0.4	5.8	0.4	11.6	0.5	17.4
NEDC	0.1	-10.5	0.2	-7.0	0.2	-3.5	0.2	0.2	3.5	0.2	7.1	0.2	10.7
WLTC Hgh	0.2	-9.4	0.2	-6.3	0.2	-3.2	0.2	0.2	3.2	0.2	6.4	0.2	9.6
Artemis RURAL	0.4	-10.4	0.5	-6.9	0.5	-3.5	0.5	0.6	3.5	0.6	7.0	0.6	10.6
EUDC	0.1	-8.2	0.2	-5.5	0.2	-2.8	0.2	0.2	2.8	0.2	5.5	0.2	8.3
UCLA92	0.4	-11.6	0.4	-7.8	0.5	-3.9	0.5	0.5	3.9	0.6	7.9	0.7	11.9
HWFET	0.1	-7.7	0.2	-5.1	0.2	-2.6	0.2	0.2	2.6	0.2	5.2	0.2	7.7
REP05	0.4	-7.2	0.4	-4.8	0.8	-2.4	1.5	2.1	2.4	2.7	4.9	3.3	7.3
WLTC ExtrHgh	0.2	-5.8	0.2	-3.9	0.2	-1.9	0.2	0.2	2.0	0.2	3.9	0.2	5.9
US06	0.4	-7.7	0.4	-5.2	0.7	-2.6	1.4	2.0	2.6	2.6	5.2	3.1	7.7
Artemis MW130	0.3	-5.8	0.4	-3.9	0.4	-1.9	0.4	0.4	1.9	0.5	3.9	0.5	5.8