

Scenario	Description
Base	Base case using the meteorological and emission data as described in Sect. 2.2 and 2.3, respectively
1.5–2 VOC	Increased VOC emissions by a factor of 1.5 and 2 for the anthropogenic and biogenic VOC, respectively
2 NO _x	Increased NO _x emissions by a factor of 2
1.5–2 VOC, 2 NO _x	Combination of scenarios 1.5–2 VOC and 2 NO _x
4traf_NO _x	Increased NO _x emissions only in the road-transport sector (SNAP 7) by a factor of 4
$T + 4^{\circ}\text{C}$	Increased first layer air temperature by 4 °C; impact on emissions was excluded
WS / 2	Reduced horizontal wind speed at all altitudes by 50 %; vertical wind speed is calculated inside CAMx to be consistent with the continuity equation and ensure mass conservation
WS × 2	Increased horizontal wind speed at all altitudes by a factor of 2; vertical wind speed is calculated inside CAMx to be consistent with the continuity equation and ensure mass conservation
±5 O ₃	Increased/decreased initial and boundary (top and lateral) conditions of ozone by 5 ppb