

CIVITAS Webinar: Smart choices for cities - Clean buses for your city - Q&A via the chatroom

Question	Answer
1 Do you use any methodology to estimate in figures advantages of emission free solutions?	This can be done in societal cost benefit analysis
2 how can you predict 2030 km cost, with gas and electricity and petrol prices impossible to predict	Based on expected price development. This indeed can change over time.
3 Maybe you should give the EEV definition	Enhanced environmentally friendly vehicle was a definition for Euro V engines with a stricter limit on emissions compared to std Euro V
4 What is included in the km cost TCO?	For more information on cost calculation and what is included, please see McKinsey 2012, Urban buses; alternative powertrains for Europe
5 and personal cost (driver)?	Those are not included in the calculation.
6 Are you talking of 12 m standard electric buses...difficult to estimate cost of aquisition, since very view on the market	standard 12m electric bus, 18m trolley
7 Hydrogen €/km cost must be higher than indicated if Hydrogen infra (and fuel) cost are included!	Reference: McKinsey 2012, Urban buses; alternative powertrains for Europe
8 With 20 % reduction for hybrid buses you talk of small battery (or no battery) buses, not of (future) larger battery buses...	Based on current hybrids. The amount of recuperating energy is limited. Mounting a larger battery will not directly result in less fuel consumption. However more km can be driven electrically if you charge the battery externally
9 Can we state that there are no environmentally-friendly Diesel buses?	There are environmental friendlier options than diesel is what we can state. Diesel Euro 6 buses have a very good emissions performance.
10 Emission estimations come from lab or real operation results? If in real operation, how do you treat different operation environments (e.g. climate, altitude, etc...Rome Vs Oslo, etc)	These results come from real world emission measurement results. Several institutes like TNO gather these figures. They are diverged into general emission figures. For every specific environment, emissions may differ.
11 Is it possible to quantify the risk (in terms of \$ cost) of a new tecnology? For example, Toronto had significant problems with their first hybrid bus fleet in 2008 due to failures in the baterries	Very difficult. You have to take into account the maturity of the product, but also the manufacturers reliability,possible, but it remain an estimation. You can also discuss how to deal with failure costs or reduction of mobility with the manufacturer or service company.
12 Has anyone explored emissions of CNG busses when it comes to particules smaller than PM10? Some studies show that in CNG busses, most of the particles have a diameter of less than 40 nm ... these could cause greater problems to health to humans than diesel .. thanx	In new Euro VI emission regulation this is covered by setting a limit not only on particle matter mass but also on particle mass numbers

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aanyway, important is the cost per passenger km, not vehicle km alone!!

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