ebusplan
Solutions for Clean Transportation

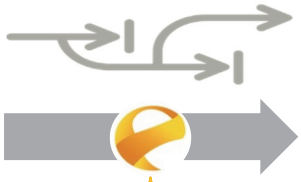
Your partner for introducing electric buses

Electric buses on the rise

Zero emission zones, CO_2 mitigation initiatives, and political visions speed up the transition towards electric bus fleets. The transition comes along with an increased level of complexity. The variety of technical solutions is large, and each sets different boundary conditions to city infrastructures, operations and budgets.

ebusplan offers support in any stage of the electrification process in your city

The mission of ebusplan is to assist public transport authorities, cities and regions in the electrification process. Our consulting and planning services ensure a reliable and cost efficient electric bus system. By avoiding impasses in the planning process, our customers save time and money.



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Kick-start workshops

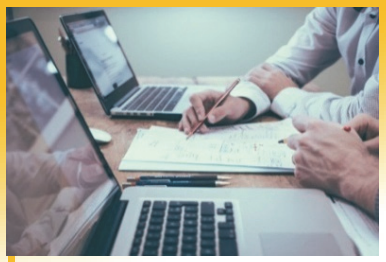
for those who just have started

- Get insight in e-bus technology and required infrastructure
- Understand technical limitations and become aware of main cost drivers
- Explore concepts how to plan, monitor and evaluate electric bus operation

Feasibility studies

for those who want to identify suitable routes and technologies

- Assess the electrification potential of your bus network
- Identify routes and scenarios which can be electrified at reasonable costs
- Evaluate the performance of the available technology with regards to the local situation
- Quantify environmental benefits



Electrification concepts

for those going into detail

- Get detailed cost figures for defined scenarios (from single routes up to the entire network)
- Benefit from the TCO optimization of ebusplan
- Derive the entire set of specifications to tender electric bus systems
- Elaborate the consequences of different ownership models
- Justify decisions based on a cost-benefit analysis

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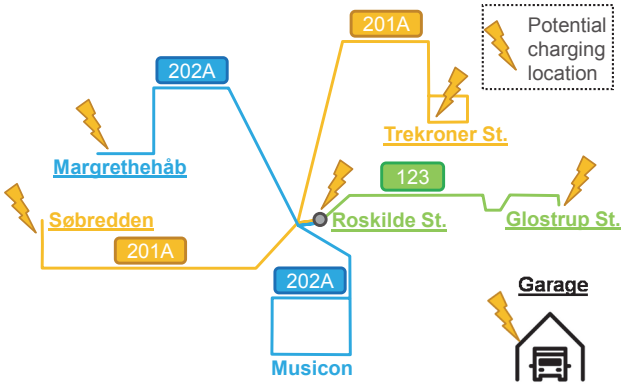
The use of electric buses in public transport calls for a reliable and affordable system design. The challenge is therefore to implement e-buses in existing vehicle schedules while minimizing the investment in buses and the required recharging infrastructure. ebusplan has developed a unique planning tool for electric buses which forms the core of our software-based consultancy services. Our tool can be applied to any situation, ranging from a single route to an entire network of routes. During the planning process the planning software enables us to consider specific requirements set forth by all stakeholders in detail. Our algorithms then optimize for reliability of operations and the full life-cycle costs of the system.

Example – Electric buses for Roskilde/Copenhagen

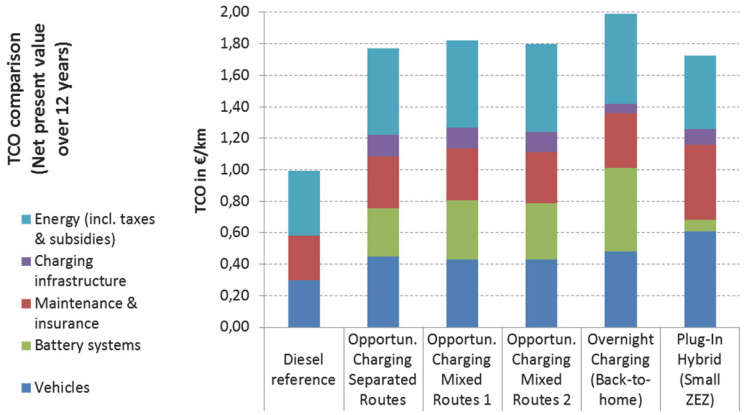
movia

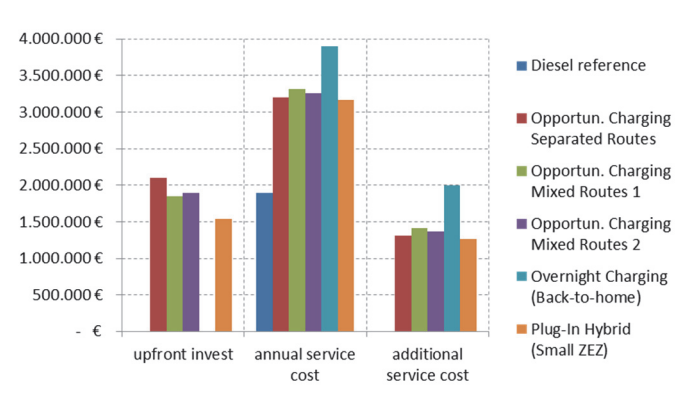
Client: Movia (transport company in Copenhagen and eastern Denmark)

Objectives: Explore the potential for electric buses on 3 bus routes. Evaluate technical feasibility, develop optimized vehicle schedules, evaluate charging locations, and design cost-optimized system. Each for Opportunity charged buses, Overnight charged buses, and Plug-In hybrids. Thereby evaluate synergies by sharing charging stations at terminal stops the routes have in common. Prepare decision basis by specifying required budgets for upfront investments and annual services.



	Bus runs	Spare vehicles	In total	Annual mileage
123	14	1	15	
201A	7	1	8	
202A	4	1	5	
Total	25	3	28	2.105M





About ebusplan

We are a young and independent spin-off of RWTH Aachen University. We have accumulated years of hands-on experience with e-buses in a number of projects (e.g. H2 bus NRW, SEB, ZeEUS, LoCarUT) and have provided consultancy to bus operators, transport authorities and manufacturers. We have initiated and devolved the concept for the high-power charging project in Münster (up to 500kW at selected bus stops). Furthermore, we set up the consortium for the SEB eÖPNV project as well as for the ZeEUS demonstration in Münster.



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