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# TOWARDS INTRODUCTION OF ELECTRIC BUSES: PUBLIC ATTITUDES IN CONTEXT OF TEMPERATURE COMFORT LEVEL

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**Abstract** – One of the primary challenges in integrating electric buses into public transport systems is their cost. This financial burden is exacerbated in colder climates due to the significant energy required to heat the passenger compartment. To address this issue, the project ‘Development of a Sustainable Heating Solution for the Salon of Public Electric Transport’ was undertaken. It aimed to enhance the feasibility of electric buses during winter months. The project included an assessment of current heating standards and solicited passenger feedback on bus heating. This article presents the study's findings, which comprised three segments: an evaluation of existing solutions, a survey capturing passenger opinions, and an observational study correlating passenger behaviour with weather conditions and onboard temperatures. The survey results indicated generally favourable public attitudes towards green transportation, albeit as long as they did not have to additionally pay for it. Awareness of heating as a contributing factor to increased expenses was relatively low, with only one-fifth of respondents acknowledging it. When interviewed, most passengers rated the onboard temperature as ‘acceptable’ or ‘too warm’. On the other hand, the onboard observations showed, that when riding a heated bus on a winter day less than 20 % of the passengers removed their winter accessories or loosened their overcoats inside the heated buses, despite the interior temperature being up to 20 °C warmer than outside. One would expect that would lead to health risks due to excessive sweating resulting from overheating. In conclusion, it has been ascertained that to date, minimal research has been conducted on strategies to reduce heating costs in electric buses. Further investigation is essential to explore the array of options, both technical and regulatory, to optimize heating systems in line with the electrification of public bus fleets.

**Keywords** – *Electric bus; heat, ventilation and air conditioning (HVAC) in electric buses; heat accumulators; public transport; thermal comfort*

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