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Multi-Criteria Decision Support System with Negotiation Process for Vehicle Technology

Selection

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Abstract

Decision Makers (DMs) in vehicle technology transportation planning, seek to understand the impact of a given technology on energy use and GHG emissions. There are decision making processes to evaluate technology solutions to meet policy maker requirements, others that evaluate technologies to satisfy consumer requirements, and others that evaluate technologies that provide the automaker with a profit. However, there does not appear to be a decision making process that incorporates all such evaluations into one model. The ideal process should incorporate economic evaluation, market diffusion and government regulations. The aim of this paper is to try and help get closer to such an ideal process, by developing an interactive Decision Support System (DSS), that incorporates as much pertinent information and modeling results published in the available literature as possible. The DSS will have all DM inputs incorporated and generate a ranking of technologies and/or scenario alternatives. The generated results will initiate a negotiation process

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