

Notes About the Model

Almost all vehicle models in this study adopted methodology from the paper:

Hamza K, Chu KC, Favetti M, Benoliel P, Karanam V, Laberteaux KP, Tal G (2020) Validity Assessment and Calibration Approach for Simulation Models of Energy Efficiency of Light-Duty Vehicles. *SAE World Congress*, Detroit, MI, USA, 2020-01-1441

DOI: <https://doi.org/10.4271/2020-01-1441>

and More Recently... the vehicle models have been further updated in the paper:

Hamza K, Benoliel P, Chu KC, Laberteaux KP, (2022) Extended Modeling, Calibration and Validity Assessment of Vehicle Models in Future Automotive Systems Technology Simulator via Real-World Driving Data. **Presented at** SAE WCX 2022 ([pre-publication draft](#))

However... due to insufficient real-world driving data for 2016 Corolla at the time of creating these models, the **Corolla FASTSim model** was only tuned so that it closely **matches the EPA Window-Sticker Label**. It should be noted that the resulting **GHG and running costs may be less accurate** than other vehicle models, but nonetheless, the Corolla model is included in the study in order to provide an alternative perspective of a conventional ICE vehicle (the only other conventional ICE in the study being CR-V)