

Abstract

The main goal is to analyse the individual preferences of Greek consumers for alternative-fueled passenger vehicle technologies, including battery electric and plug-in hybrid electric vehicles. Considering the low electric vehicle uptake and the large solar energy potential in Greece, I investigate the impact of public support of a combination of photovoltaics and battery electric vehicles when these two technologies are supported jointly on consumers' decisions. I use discrete choice experiments to estimate the preferences and willingness to pay of a representative sample of potential car buyers in Greece for monetary, technical and policy attributes of vehicles. I find a positive attitude of consumers towards battery electric and plug-in hybrid electric vehicles and that the installation of photovoltaics is instrumental in exploiting the full benefits of electric vehicles. The results indicate that vehicle price, operating costs, normal charging time and subsidization for wallbox installation are the key factors affecting the adoption of electric vehicles. I also explore both unobserved and observed consumer preference heterogeneity. Policy recommendations include joint support, when possible, of the adoption of electric vehicles with the installation of photovoltaics and wallbox, the reduction of the upfront price, and the increase in consumers' knowledge of technologies and related policies.

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Keywords	Battery Electric Vehicles; Photovoltaics; Consumer choices; Stated Preference; Discrete Choice Experiments; Mixed Logit; Willingness to Pay
Title	Households' adoption of energy-efficient technologies in Greece: Independently or Jointly?