

## **CESI Flexible Fund Project (FFC3 - 007) – Policy impact/impact pathways**

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This document highlights the key areas where the publications (policy briefs and journal papers) delivered through the **CESI Flexible Fund Project (FFC3 - 007)** '*Who Ultimately Pays for and Who Gains from the electricity network upgrade for EVs to support the UK's Net Zero Carbon Ambition?*' have played and/or are playing a key role as part of CEP's evidence-based research portfolio and impact pathways for informing and supporting public policy decision makers and other key stakeholders.

- 1. Generating policy relevant evidence and insights:** Our influence on policy has been through developing and providing traceable evidence and insights on the potential economy-wide and societal impacts/ implications of enabling and realising the roll-out of electric vehicles (EVs). As one of the key components of reaching mid-century UK net zero targets, understanding these impacts is crucial for policy, regulatory and industry stakeholders who are charged with delivering the decarbonisation of transport. This has involved impacting policy through continued demonstration and application of the CEP [Net Zero Principles Framework](#) (NZPF), crucial for developing and deploying net zero policy and practice. In particular, NZPF #1 around understanding the opportunity and challenges of net zero in terms of 'who really pays', 'how' and 'when' and 'what' gains can be used to balance and/or offset potential challenges if enabling and realising the EV rollout is to be sustainable.
- 2. Facilitating stakeholder engagement and interactions to enable research uptake and use:** The project team has strategically engaged with key stakeholders via workshops, discussion meetings and as part of CEP's communication around the 2021 Climate Conference (COP26). For example, we have engaged with Department of Business, Energy & Industrial Strategy (BEIS), and Office of Gas and Electricity Markets (OFGEM) on the cost and benefits of the EVs rollout. This has involved presentation on the evidence (see Alabi et al., 2021a, 2021b) that demonstrates how net gains do emerge across the wider economy as a result of enabling (through electricity network upgrades) and realising the rollout of EVs in the UK. However, we have also drawn policy makers attention to the type of tensions, challenges and trade-offs that may arise around a combination of: (a) how the cost recovery and demand pressures may impact energy bills; and (b) how expanding electrification in a constrained economy environment (focussing here on the UK labour supply constraint) may impact electricity prices and the wider cost of living.
- 3. Applying lessons and findings to develop research approaches to understand other net zero challenges:** We have continued to interact with and inform policy analyses and thinking through the development and advancement of our economy wide computable general equilibrium (CGE) modelling framework (commonly used by financial institutions e.g HM Treasury) and the interaction with an energy system model (UK TIMES). Crucially, we offer a unique and established concept, published in peer reviewed papers (e.g Alabi et al., 2021b, 2022), that has paved a way for

engaging and supporting different government analytical departments (e.g., within BEIS). For instance, our modelling framework is already playing a role in addressing other policy concerns and issues in the net zero space (e.g., decarbonisation of residential heating). Similarly, we have also provided evidence that has supported industry (e.g., Scottish Power Energy Networks (SPEN)) to demonstrate the need for a holistic approach involving both whole energy system and economy wide considerations in the design of regulatory frameworks to support business planning in line with wider public policy objectives.

## References

Alabi, O., Katris, A., Calvillo, C., Turner, K., & Stewart, J. (2021a). Understanding the trade-offs involved in driving economic growth in the transition to electric vehicles.

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Alabi, O., Turner, K., Katris, A., & Calvillo, C. (2021b). Opportunity and challenges on the path to Green Growth: potential price pressures, tensions, and trade-offs emerging through the UK electric vehicle transition. [*Under review and working paper available on request*].

Alabi, O., Turner, K., Katris, A., & Calvillo, C. (2022). Can network spending to support the shift to electric vehicles deliver wider economy gains? The role of domestic supply chain, price, and real wage effects. *Energy Economics*, 106001.

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