



UNIVERSITY of STRATHCLYDE
**CENTRE FOR
ENERGY POLICY**

**OFGEM OPEN LETTER CONSULTATION ON APPROACH TO SETTING THE NEXT
ELECTRICITY DISTRIBUTION PRICE CONTROL (RIIO-ED2)**

The Centre for Energy Policy at the University of Strathclyde is a compact, yet experienced, team in conducting analysis on a wide range of energy related topics and the impact of energy policies on the wider economy, at Scottish, UK and international level. Our experience includes work on the potential multiple benefits of energy efficiency improvements, network upgrades to support the projected EV roll-out, the economic viability of emerging technologies such as CCUS and hydrogen and social aspects associated with energy policy including fuel poverty and just transition. The outcomes of our work have been used to contribute to public consultations at UK and Scottish level, and we have contributed to government publications such as the BEIS CCUS action plan and the Scottish Government Energy Efficient Scotland Route Map.

We are not an industry group or expert in most of the issues where responses are invited. Thus, we do not attempt to answer all the questions posed. We focus attention on Q7 as it focusses in an area that we are currently researching, through a combination of EPSRC and industry funding. This is the wider economic costs and benefits emerging from electricity network upgrades to support the projected increased and changed demand for electricity through the net zero carbon transition. Our recent EPSRC research (funded through the National Centre for Energy Systems Integration, CESI) focussed on the case of network upgrades to support the projected EV roll-out to 2030. However, the issues raised are more generic in terms of how large investment programmes may have ‘unintended consequences’ across the wider economy. The multi-sector economy wide ‘computable general equilibrium’ (CGE) approach we have adopted is one used by HM Treasury to consider wider economic impacts. One avenue of our on-going research is to consider how outcomes may be reflected in the HM Treasury Green Book approach to social cost benefit analysis (SCBA) or, where full SCBA is not practical/feasible in more limited cost effectiveness analyses.

The crucial point in the current context is that, while Ofgem do require firms to conduct SCBA, the scope will be limited relative to what a full public sector appraisal requires. This is entirely appropriate given the scope of Ofgem’s responsibilities. However, our research suggests that there may be wider economic costs and benefits that may be of concern in a wider political and policy landscape. Moreover, these may raise or lower the NPV calculated under a fuller SCBA analysis relative to what emerges from the Ofgem SCBA framework. For example, while a given investment in a particular timeframe may deliver net benefits under the Ofgem framework, any ‘crowding out’ due to price and income effects in other parts of the economy may deliver a net negative impact on NPV overall and/or within particular time frames of concern. This may involve macroeconomic impacts, for example on GDP, employment in different sectors, but also household incomes. On the other hand, there could be positive ‘multiplier’ effects in different sectors and markets.

We have begun to research these questions in our May 2019 policy brief titled ‘Who ultimately pays for and who gains from the electricity network upgrade for EVs’.¹ There we do find that, over some initial timeframes the large-scale investment required will be

¹ Our policy brief can be accessed at <https://strathprints.strath.ac.uk/67741/>,

disruptive to the wider economy. But, over time, our research suggests that the net outcome may be positive due to a broad set of economic benefits, including up to 3,000 new jobs associated with 20% EV penetration by 2030. The main driver is likely to be strong UK supply chain activity driven by powering vehicles with electricity. In terms of impacts on vulnerable consumers, if the impacts of investment spending are considered in isolation, the net impacts on real incomes remains negative for lower income households. While low income households are less likely to gain directly from either access to EVs or any economic expansion that is triggered by investment in or uptake of EVs, we estimate that the net reduction in real incomes may be limited to only a few pounds per household per year.

In sharing and discussing our findings, we do not attempt to argue that Ofgem should change its SCBA model. We recognise that the guidance² does currently allow for “valuation of societal benefits and non-marketed goods”³ and provides methodological guidance. Rather, our examples above focus on questions around a range of costs and benefits that lie outside of OFGEM’s direct scope of responsibility, but which may be of concern to a broader public decision making community, and where vulnerable consumers may be further impacted through a range of wider economy impacts. This is likely to be important in cases where outcomes conflict, but also where wider economy benefits may help to offset negative income effects that more directly impact, particularly through increases in energy bills to cover investment costs. The Ofgem guidance does bring in consideration of ‘whole systems’ under ‘Future Pathways – Net Zero’.⁴ The question, then is how we define the ‘whole system’ and what other investments compatible with net zero may be considered. Perhaps the solution at this stage is to consider how issues such as these may be raised through sensitivity analyses to firms’ baseline CBA calculations.

The current stage of our research involves focussing attention on identifying key social benefits and considering how these may inform social cost benefit analyses (SCBA) conducted by Ofgem and the UK Government. Key variables will include reductions in CO2 emissions and net impacts on employment and wage income, energy prices and the real incomes of low-income households. We are keen to discuss and share our findings, but also welcome discussion from Ofgem colleagues on how we can most useful design and frame our research. In the meantime, I hope that this contribution is useful in the current consultation process.

Yours faithfully,

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² I refer to the guidance available in the RIIO-ETS Investment Decision Pack Guidance at <https://www.ofgem.gov.uk/publications-and-updates/riio-2-final-data-templates-and-associated-instructions-and-guidance>.

³ I refer to Section 5 of the above document.

⁴ I refer to Section 7.1 of the above document.