

CEP 5 Year Birthday Webinar

Do we have a new understanding of the Just Transition? Ensuring Prosperity in the Race to Net Zero



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Chair, CEP Advisory Group,
Visiting Professor

CEP team and approach

- The Centre for Energy Policy (CEP) is a **multi-disciplinary research, knowledge exchange and policy stakeholder engagement hub**
- Energy and climate issues in a wider public policy context.
- Crucial need to understand economic, social and political context and consequences
- Expertise in modelling for wider economy scenario analyses – where and how is/could value generation be affected by alternative courses of action?



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CEP 5 key messages for COP – for a ‘Just Transition’

1. Understanding who really pays, how and when and what gains can be used to balance this is fundamental
2. We need to find pathways that allow us to sustain and **grow our prosperity in an equitable way**
3. Finding options and pathways that can deliver **near term economic returns** is crucial – especially in a post Coronavirus pandemic economic environment
4. ‘Off-shoring’ is not the answer if it only shifts emissions, jobs and GDP overseas
5. Net Zero is a **societal and public policy challenge** more than it is a technological one



Just Transition – Prosperity for People



CEP research and policy foundation



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A Net Zero Principles Framework:

Fundamental questions for public policy analysis

Karen Turner, Julia Race, Oluwafisayo Alabi,
Antonios Katris and Kim Swales

<https://doi.org/10.17868/71580>

Policy Briefing



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**What is the role of pumped hydro
energy storage in generating value
and reducing energy system cost in
a net zero economy?**

Karen Turner, Oluwafisayo Alabi and
Constantin Brod

Policy Briefing



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State aid or Subsidy Control: Ensuring Prosperity in the Race to Net Zero

Karen Turner, Julia Race, Antonios Katris and Jamie Stewart

Policy Briefing



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**The role of CCUS in industry clusters
in delivering value to the political
economy: a new multiplier metric for
the quality of employment**

Karen Turner, Oluwafisayo Alabi, Julia Race and
Antonios Katris

<https://doi.org/10-17868/69805>

Policy Briefing



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Who ultimately pays for and who gains from the electricity network upgrade for EVs?

Karen Turner, Oluwafisayo Alabi, Christian
Calvillo, Antonios Katris and Goele Figus

Policy Briefing



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Delivering Prosperity: Industrial Decarbonisation and the Just Transition

Karen Turner, Julia Race, Oluwafisayo Alabi, Antonios Katris, Kim Swales

Introducing a new project in partnership with the
Bellona Foundation

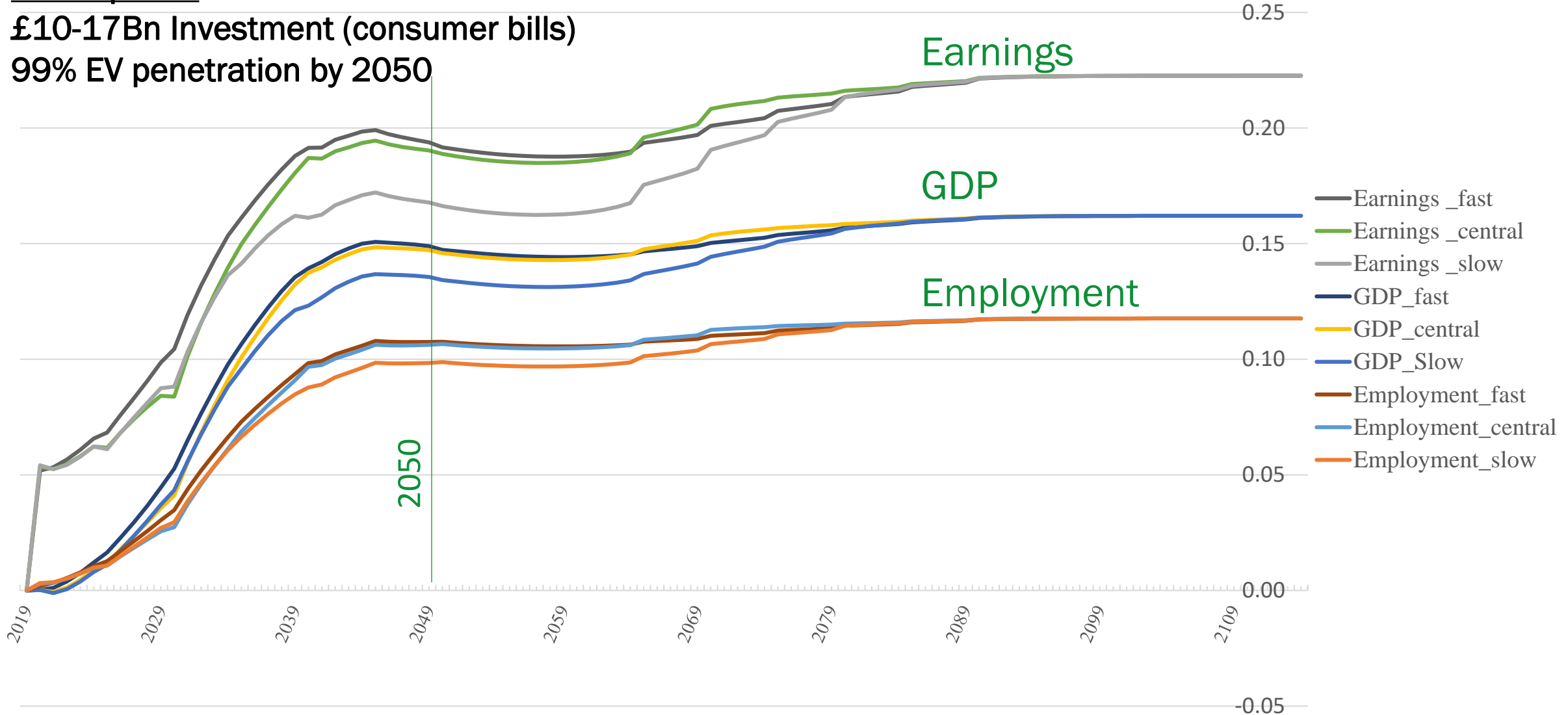
Research Briefing

Example: How might electricity network investment to enable the EV roll out impact UK GDP, earnings and employment through the transition timeframe?

Evolution of net impacts (% change relative to base year values) on UK GDP, employment and earnings from employment for slow, central and fast investment scenarios

- Assumptions

- £10-17Bn Investment (consumer bills)
- 99% EV penetration by 2050



A just transition? Economic benefits must be set in context

1. Expansion is ultimately driven by better off UK households being able to spend more, which puts upward pressure on all prices and has competitiveness impact: change in composition of **GDP away from exports, with implications for manufacturing supply chain activity, jobs and earnings**
2. A key source of expansion in the scenarios modelled here is increased demand for UK electricity, which is likely to cause sustained upward **pressure on the price of electricity** faced by UK business and domestic consumers - contributes to CPI and competitiveness pressures
 - Greater pressure on electricity prices could act to widen real income inequalities – and offset wider economy gains achievable via other net zero actions via reduced energy service costs

Considerations for a Just Transition – Residential Energy Efficiency



Potential wider economic impacts of the Energy Efficient Scotland programme

Karen Turner, Antonios Katris, Gioele Figus and Ragne Low,
Centre for Energy Policy, University of Strathclyde



- Energy efficiency – a key route to reducing direct household emissions and putting real income and spending power in people's pockets → **triggers a sustained process of economic expansion**
- Retrofitting projects/schemes and supply chains likely to provide an additional trigger for net gains throughout the enabling stage, depending on domestic supply chain capacity and utilisation
- There is a trade-off in terms of **greater access and social gains from enabling efficiency** gains for the least well off in society against **expansionary power per £ spent**
- Crucial in all cases: that the cost of delivering residential energy services actually falls in real context of multiple decarbonisation actions → **energy prices**

The challenge of industrial decarbonisation

Current Emissions

- Business and industrial emissions are 21.4% of Scotland's total emissions
- Business and industrial emissions have reduced by **39.7% from 1990 to 2017** - largely through offshoring

Just Transition

- Scotland could continue to decarbonise by closing sites – but can we rely on imports for essential products/services? Is that better for global emissions & Scotland's economy/livelihood?
- **6000 people are employed in the Scottish Chemicals industry, plus thousands of supply chain jobs**
- Can we decarbonise in a way that ensures the continued prosperity of people, businesses and public finances?



Example: the implications of industrial carbon capture?

- CCS – widely agreed as necessary to deliver deep emissions reduction, but challenging
- Carbon capture - **more equipment/costs to produce the same output**
- Implications for capital efficiency and **competitiveness**
- Risk to high value industry and supply chain jobs, earnings, GDP and tax revenues – need for **sustained contribution of UK industry to ensure prosperity** going forward
- Role of public investment via subsidy to ensure high value activity is sustained
- Socialising costs: Political feasibility? Implications of reduced household spending?
- **Can other elements of the wider Net Zero portfolio be designed in such a way as to boost real household incomes to offset the impacts of and/or need for changes in taxation?**



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Do we have a new understanding of a Just Transition?



Environment

Climate crisis: Coronavirus pandemic has caused 17% drop in global carbon emissions

Return of mass road travel and industry expected to drive rapid return to high levels of pollution

Global job losses rise sharply as coronavirus lockdowns are extended

UN agency estimates lost working hours are now equivalent to more than 300m full-time jobs

Coronavirus tracked: What the biggest collapse in air pollution levels ever recorded actually looks like

Visualising the impact that lockdowns around the world have had on the environment

Coronavirus: Nearly two million claim universal credit

🕒 4 May 2020 | 📰

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Coronavirus pandemic

Coronavirus: Job losses 'break my heart' - Sunak

🕒 12 May 2020

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Coronavirus: More than 6.5 million jobs to be lost in UK lockdown, study predicts

Research says accommodation and food services will be worst affected by restrictions

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Q & A