

Net zero is not just good science—it's also a good deal for ordinary people

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As the UK moves into a general election, a misinformed debate over the country's climate transition and legally binding net zero targets risks further dividing people.

Much of this debate in the UK focuses on the "cost" of net zero. For instance, energy secretary Claire Coutinho recently [stated](#) the government did not want a "net zero leviathan" to crush the nation's "brilliant enterprise economy," while the Labor Party had to [backtrack](#) on its own headline climate [investment](#) pledge, citing "affordability" and "fiscal rules."

But the true "cost" is tricky to evaluate. How do we value the benefits from investing in a climate transition that will occur over decades, against the immediate cost-of-living pressures faced by households and businesses today?

In a [new study](#), we show that achieving net zero and economic well-being are not mutually exclusive goals. In fact, the additional annual cost of pursuing net zero is somewhere between 0.7% and 1% of GDP, or £5–£7 a week per person.

By contrast, the cost of inaction, in the form of more severe climate impacts, has previously been estimated at [1.1% of GDP](#). This number will only continue rising. According to one estimate the UK, along with Switzerland, is set to see the world's most dramatic relative increase in uncomfortably hot days (a [30% increase](#)).

Many investments will happen anyway

To estimate the "cost" our first step was to look at the additional investment, or upfront capital expenditure, that will be needed every year for the UK to meet its targets. Specifically, we looked at what it costs to install and use a "clean" technology (an electric car, for example) compared to a "fossil" technology in the same use (a petrol or diesel car). We considered this both in a low and a high inflation environment.

We find that much of this investment will go ahead anyway, thanks to

natural turnover, including people buying new cars or businesses replacing old assets. The economy-wide investment needed for a push to net zero—across public and private sectors—is only 25% more than the investment that will proceed anyway under current policies.

Clean technologies tend to be cheaper to run

The second step was to account for the running costs of these technologies over their lifetimes. For instance when comparing a heat pump to a gas boiler, this would mean factoring in both the initial costs as well as around 15 years of running costs—for most people, this covers the number of years they tend to stay in their homes before they decide to move or sell. We [also consider](#) carbon prices (set by policies such as the UK emissions trading scheme) over that period. We call this number the "total cost of ownership."

We find that in more than 80% of investments the total cost of a [clean technology](#) is considerably lower than that of a fossil technology. For instance by 2030, offshore wind power will be 66% cheaper than gas-fired power, and an electric car will be 60% cheaper to buy and run than a fossil fuel car.

Around 13% to 20% of cases, mostly to do with home heating, require policy support to become cheaper than their rivals—or what we call the "green premium." It is households, rather than businesses, that will need policy attention. However, most households with at least one car will be better off overall, and we estimate they will save up to £380 per year.

Being poor is expensive

But even if a clean technology is cheap to operate, some people may struggle to raise the upfront capital. For instance, households that are

fuel poor could benefit from a [heat pump](#) or cavity wall insulation. But those same households also tend to have less cash in the bank and less access to credit, or may be renters and powerless to make those changes in any case. They also face non-monetary barriers such as time, access to information, and misperceptions around the "cost" of net zero.

This means that some of these households will tend to undervalue the savings that heat pumps or better insulation will provide in future and so will see it as a poor investment. Policy interventions will be needed.

We therefore considered a balanced mix of policy measures, including carbon prices, behavioral support (such as information campaigns and credit de-risking) and subsidies to reduce the running costs of clean technologies. We find that the additional public finance needed beyond these measures (mostly in the form of subsidies for capital expenditure) is relatively modest, about £6 billion to £8 billion per year.

Finally, our analysis estimates that a push for net zero could create 250,000 additional jobs by 2030 and beyond, including in sectors such as maintenance and repair, and in financial services in which the UK still holds a comparative advantage.

Let's get on with it

To avoid the most severe climate change, speed is essential. What matters to the climate is not just getting to net zero (at which point the temperature stops going up) but also cumulative emissions up to that point (which determines the total temperature increase we will face).

So doing less in the near-term, even if still claiming to be committed to net zero, does not lead to the same temperature outcome. Every failure to reduce emissions in the present implies that we are "borrowing" emissions from the future—which pushes up the costs to both our

economy and society.

Our analysis shows that even if the current high cost environment prevails, UK citizens can get a good deal on net zero, minimizing costs to people and the public purse, with the added benefits of improved homes, reduced bills, more jobs, and less carbon. The question now is whether policymakers can grasp the opportunity while it still exists.

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