

Green jobs debate should look beyond short-term benefits, says UKERC report

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A new study by the UK Energy Research Centre (UKERC) suggests that renewable energy and energy efficiency create up to ten times more jobs per unit of electricity generated or saved than fossil fuels. However, in itself labour intensity may not be a desirable quality and support for green jobs should not solely focus on short-term gains but also look towards long-term economic growth.

The study by UKERC's Technology and Policy Assessment team, analysed data from fifty studies published since 2000 on the relationship between green energy investment and job creation in the USA, Europe and China, finding that on average:

- * Electricity from coal and gas creates 0.1-0.2 jobs per gigawatt-hour generated
- * Electricity from wind creates 0.05-0.5 job per gigawatt-hour generated
- * Energy efficiency creates 0.3-1.0 jobs per gigawatt-hour saved
- * Electricity from solar creates 0.4-1.1 jobs per gigawatt-hour generated

Results show that renewable energy and [energy efficiency](#) create up to 1 job per gigawatt-hour more than [fossil fuels](#) and when the economy is underperforming, such as during a recession, it is sensible to focus government expenditure on these labour-intensive sectors.

However, the evidence on long-term [job creation](#) is equivocal, reflecting the complexity of the issue. Employment in the energy industries also needs to be considered in the light of wider macroeconomic questions. If

the economy is near full employment then high labour intensity may not provide a strong rationale for government support.

"Government-led investment in renewable energy and energy efficiency can offer short-term benefits, helping the economy to grow in times of recession by promoting employment," said Dr Will Blyth from Oxford Energy Associates who led the two-year research project.

"When the economy is starting to recover – such as now – the key challenge for government policy is to encourage an economically efficient transition towards the country's strategic goals – such as tackling climate change. Here there is a strong case for investment in renewable technologies and efficiency measures as part of the transformational change to a low carbon energy system," he adds.

The report concludes that '[green jobs](#)' is not a useful prism through which to view the wider benefits of renewable energy and energy efficiency investment. The green jobs debate must look beyond short-term benefits and consider the crucial role renewable energy and energy efficiency have in reshaping the economy as part of a broader industrial and environmental strategy.

"The green jobs debate has always been vexed – often because it has been argued between vested interests and because analysis is too short-term or provides an incomplete picture. Our report helps explain the issues and shows that, in principle, investment in [renewable energy](#) and energy efficiency can create jobs. However, the issues are complex and simplistic conclusions are best avoided," said Dr Rob Gross, from Imperial College London, one of the authors of the report.

"Ultimately, it is more helpful to think about jobs in terms of long-term goals and the major challenges we all face, like tackling climate change. This is why it's important that we think through these issues and the kind

of future we want," he adds.

More information: The full UK Energy Research Centre report "Low carbon jobs: The evidence for net job creation from policy support for energy efficiency and renewable energy" can be downloaded from the UKERC website: www.ukerc.ac.uk/support/tiki-download_file.php?fileId=3715.

The report was written by the UKERC Technology & Policy Assessment team. Authors: Will Blyth, Rob Gross, Jamie Speirs, Steve Sorrell, Jack Nicholls, Alex Dorgan, Nick Hughes.

Provided by UK Energy Research Centre

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