Coal phase-out could be cheaper than currently implemented in Germany

A study in the top journal JAERE quantifies welfare losses for employees and recommends that policymakers compensate by subsidising job changes instead of early retirement.

Berlin, 09/04/2024. Germany is providing 5 billion euros to finance "adaptation payments" to employees as coal is phased out. This will allow employees to retire without deductions at the age of 58. A study co-authored by the Berlin-based climate research institute MCC (Mercator Research Institute on Global Commons and Climate Change) is now examining the economic justification for this subsidy by analysing real employment profiles nationwide. The conclusion is that social compensation would be much more efficient if job changes, rather than early retirement, were encouraged. The study in collaboration with the Institute for Employment Research (IAB) was published in the renowned *Journal of the Association of Environmental and Resource Economists (JAERE)*.

The researchers focus on around 10,000 employees in opencast lignite mining, primarily in Lusatia and the Rhineland, including associated service providers. According to Germany's phase-out law, these operations will end by 2038 at the latest, and as early as 2030 if possible, under the traffic light coalition agreement. The prospects for the workforce are an explosive issue in view of the local economic structure, which is biased towards coal. In order to provide an empirically sound estimate of the costs of the phase-out for employees, the study draws on a comprehensive data source: anonymised social security data on the labour market profiles of all 140,000 people who worked in this lignite industry for at least six consecutive months between 1975 and 2017.

"We used this to map alternative job options and earning opportunities, and thus the welfare loss that employees suffer when leaving the relatively high-paying coal industry," says Nicolas Koch, head of the Policy Evaluation Lab at MCC and a co-author of the study. "From this empirical basis, we can then analyse future scenarios with a coal phase-out at different speeds and with different compensation schemes. We quantify here for the first time in a scientifically sound manner what this crucial climate policy decision will cost employees. And we show the best relief options that policymakers could use."

It shows that an immediate coal phase-out, which would offer very few job alternatives, would be most expensive. For the entire industry examined and without supplementary measures, it would result in an aggregated welfare loss for all employees – i.e. loss of expected income until the end of their lives – of around 4.2 billion euros. The main driver is not unemployment after leaving opencast mining, but the change to lower-earning and less stable jobs in other sectors. This is why middle-aged employees stand to

lose the most; they have already worked their way up to a high wage, which they would continue to receive for a long time without the coal phase-out. In the realistic case of a mid-term coal phase-out, it costs less; instead of the 4.2 billion euros, only 2.2 billion for the target date of 2030 and 1.5 billion for 2038.

The currently favoured adaptation payments are not very cost-effective. Of the 5 billion euros mentioned at the outset, 1.6 billion is for opencast lignite mining (the rest is for hard coal and power plants). It is expensive because it largely replaces company pensions. Rather than middle-aged employees, it only compensates those aged 58 and over. And it does little to incentivise people to remain active in the labour market – despite the general shortage of skilled workers in the lignite mining region of Lusatia, for example. As an alternative to the adaptation payments, the researchers therefore propose a "wage insurance"; for anyone switching to a lower-paid job outside coal, the state could reimburse the difference for five years so that they maintain their wage level. According to the study, this only costs 0.6 billion euros, both for a coal phase-out in 2030 and 2038. There are also advantages in that employees stay in jobs for longer, and the aggregate welfare loss is almost zero.

"The benefits of phasing out coal through avoided climate damage are many times greater than the costs in economic terms," emphasises MCC researcher Koch. "But the phase-out can be organised differently and more cheaply than in the current German system. Sound labour market policy measures provide substantial relief against welfare losses for employees. And our findings apply to other countries and sectors, such as coal in Australia and the US or oil and gas in Norway and the Netherlands. After all, policymakers in all these cases must bear employees in mind when phasing out fossil fuels."

Reference of the cited article:
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