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How to fill the ‘financing gap’ for the transition to low-carbon energy in Europe?

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Abstract

In models exploring energy transition pathways, existing investment flows are contrasted with predictions for investments needs to indicate a ‘financing-gap’ for the European energy transition. The authors draw on an in-depth analysis and comparison of the main scenarios being employed to forecast investments until 2050 as well as an analysis of the literature on the sources of finance for renewable energy. Long-term projections do not capture the supply or demand of specific sources of finance needed to cover the whole innovation chain. Our analysis reveals that under the individual investment and lending criteria/mandates the money is available. However, policy uncertainty strongly distorts investment decision making. Especially institutional investors and lenders such as pension funds and banks shy away from investments in the energy transition because of expected (policy) discontinuities and the risk of stranded assets. Moreover, more risk-bearing equity capital to finance the early stages of innovative clean energy technologies is needed to complement existing large-scale investments in existing technologies to allow for an effective and efficient mitigation that is in line with the major scenarios. Based on the analysis we develop a matrix that indicates the role for different sources of finance and new intermediation channels in the energy transition and how they need to be engaged..