When is a carbon price floor desirable?

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Abstract The EU carbon price lies well below estimates of the social cost of carbon and “target-consistent” carbon prices needed to deliver ambitious targets such as the 40% reduction target for 2030. In light of this, the UK introduced a carbon price floor (CPF) for its electricity sector in 2013 and the new Dutch Government has recently made a similar commitment, while successive French Governments have called for an EU-wide CPF. This paper analyzes the impacts and design of a power-sector CPF, both at the EU and national level, using a political-economy approach. We find a good case for introducing such a price-based instrument into the EU ETS. We suggest that a CPF should be designed to “top up” the EUA price to €25–30/tCO₂, rising annually at 3–5% above inflation, at least until 2030. We argue that the new EU Market Stability Reserve enhances the value of a CPF in terms of delivering climate benefits, and discuss the potential for a regional CPF in North-West Europe. We also review international experience with price floors (and ceilings).

Keywords Carbon pricing, electricity markets, market failure, policy failure, political economy, price floor, price corridor

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