

A photograph of a coal power plant with several large cooling towers and a tall chimney, set against a dramatic sky with clouds. In the foreground, there are greenhouses and a field.

**ROLE OF ACCELERATED LIGNITE
PHASE-OUT IN THE GREEN RECOVERY**

Enikő Kácsor

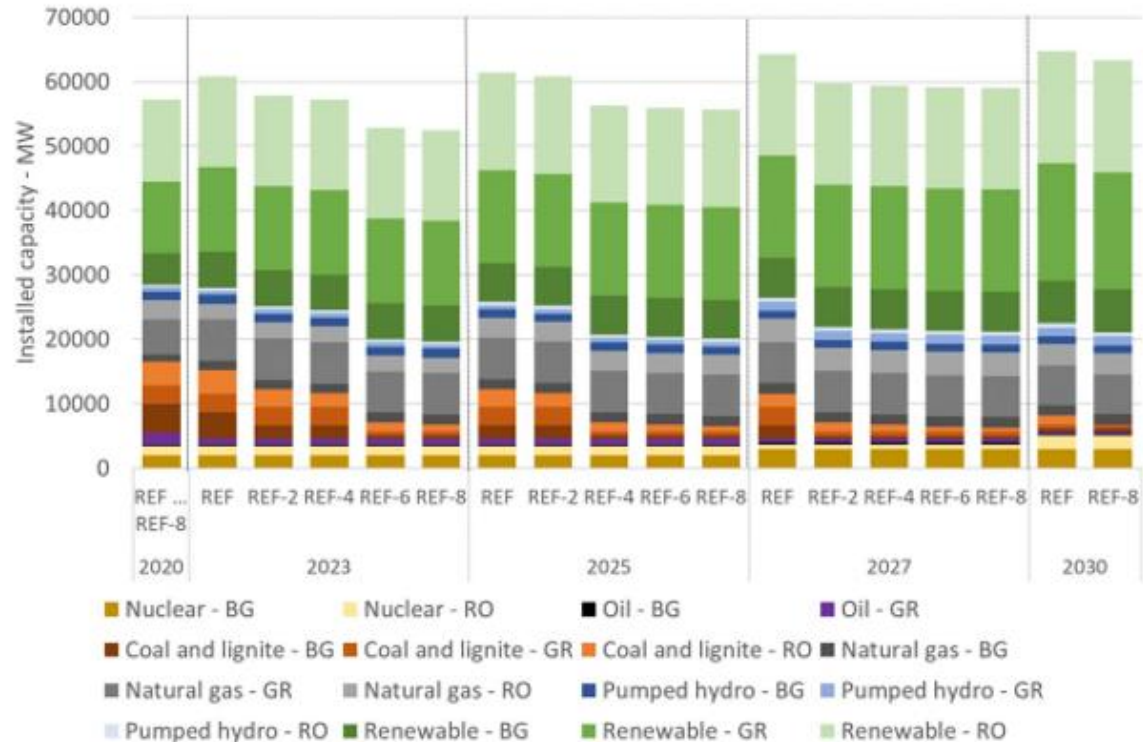
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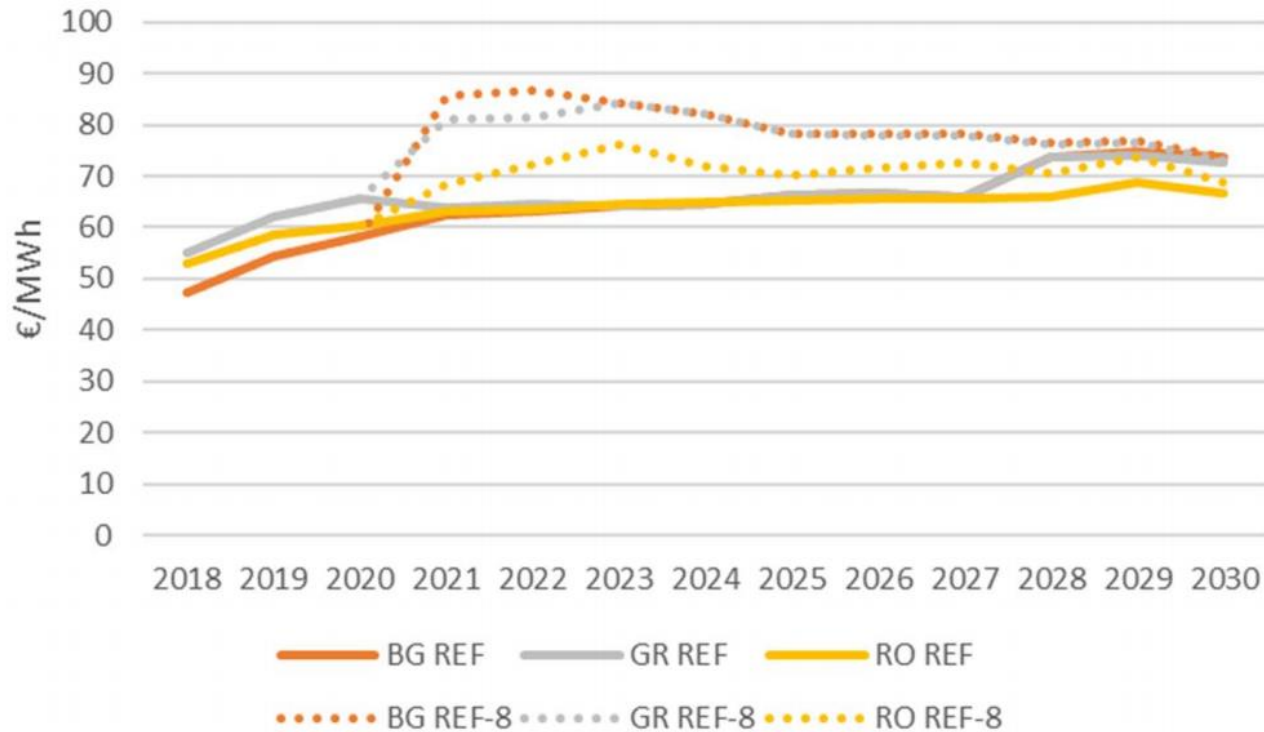
28th September 2020

Scope of the study

- How to implement a timely phase-out of lignite (and coal) in the analysed 3 countries?
- Modelling the early retirement of some coal and all lignite power plants in the electricity sector in Bulgaria, Greece and Romania
 - 1+4 scenarios:
 - Reference - with the closing date according to the latest available information
 - Early phase-out scenarios: they close 2, 4, 6 or 8 years earlier than in the Reference
 - 3 sensitivities:
 - lower RES pathway
 - impact of the carbon price (a lower and a higher CO₂ price trajectory)
 - impact of a lower electricity demand trajectory
- Impact on electricity systems and local economy + Policy recommendations to deal with potential issues related to compensation, system security and local economic impacts



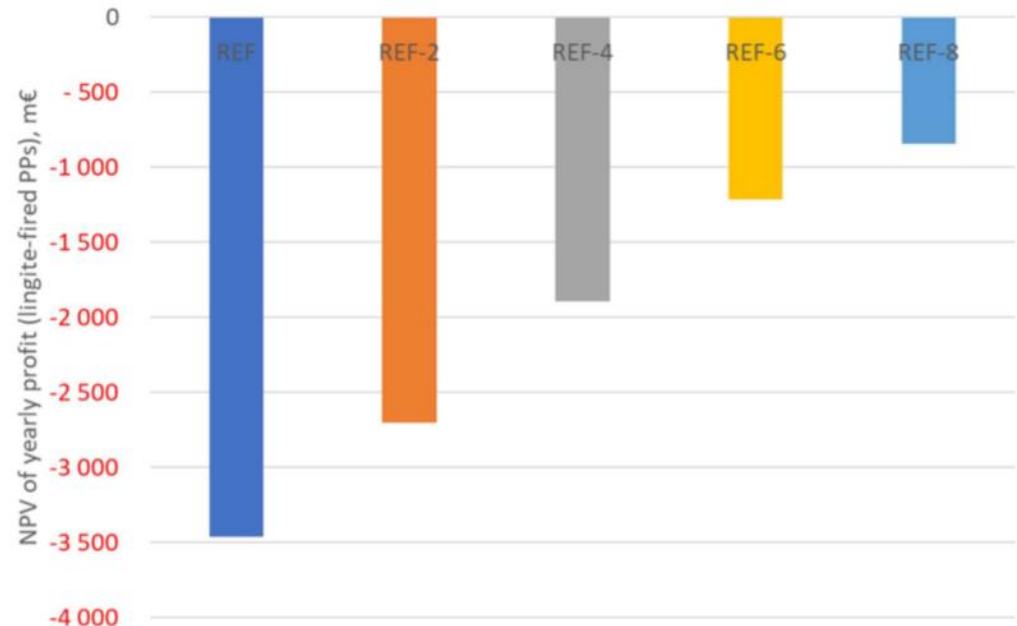
Impacts on wholesale electricity prices



- The wholesale price impact of earlier phase-out can be significant, albeit temporary.
- Price impact can be reduced significantly if energy efficiency measures are introduced – due to Covid19, the demand is already lower than it was expected earlier, this can help to mitigate the price impact.
- Higher RES deployment can also help to reduce the temporary price increase.

Profitability of lignite plants

- Annual economic losses of lignite plants are higher if phase-out happens later: **early phase-out can reduce aggregate losses**
 - closing unprofitable plants help to increase utilisation (and profitability) of remaining plants.
- Most lignite producers operate with some sort of government support (explicitly or implicitly), thus a decrease in power plant profit losses translates into support reduction, **meaning cost reductions for all the society.**
- Without support, the plants would most probably **close without any further policy intervention**, on an economic basis.
- Information on current state subsidy levels is not fully available, but is estimated at EUR 450 million in Bulgaria, at close to EUR 900 million in Greece, and EUR 200 million in Romania per year. **These revenues could be used to invest in green recovery: renewable energy, energy efficiency or the protection of vulnerable consumers.**



Thank you for your attention!

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