Perspectives for coal in Europe

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Coal demand, supply and use in the EU-27

Source: IEA Coal Information (various years)
Reference Scenario for Germany - Generation

Source: Prognos/EWI/gws for German Ministry for Economic Affairs and Energy 2014
Expiration Timeline of Coal and Lignite Fired Power Plants in the EU-27

Source: EWI Power Plant Database
Reference Scenario for Germany - Generation

Gross electricity generation in TWh

Source: Prognos/EWI/gws for German Ministry for Economic Affairs and Energy 2014
Summary

Existing asset base provides for continued coal demand at current and expected clean gas-coal-spreads.

Risks in the short- and medium-term mostly stem from potential regulatory action against coal.

Current policy framework in EU not particularly encouraging for substantial new investment in coal-fired power generation – key uncertainties, however, comprise

- Development of EU power demand
- Maximum acceptance levels for CO₂-prices
- Grid expansion across EU (supporting RES-E-rollout)
- Licence-to-operate, in particular for Nuclear and CCS
- Future subsidy regimes for Nuclear and RES-E
Thank you very much for your attention.

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High coal generation driven by fuel price economics

Dispatch Economics in Germany (2022)*

Average clean gas-coal spread [€/MWh_el]

Steam coal fired generation in 2022 [TWh]

- Low Gas: 10-18 €/MWh_th
- High CO₂: 40-70 €/tCO₂
- Medium Gas: 26 €/MWh_th
- Very high CO₂: 70 €/tCO₂
- Very High Gas: 26-34 €/MWh_th
- Low CO₂: 10-50 €/tCO₂

Assumed coal price ~ 10 €/MWh_th

*Assumptions as in German Grid Development Plan 2012, Scenario B
Full costs of electricity generation at 5€ per ton of CO₂

Source: based on IEA World Energy Investment Outlook 2014 and own assumptions
Full costs of electricity generation at 50€ per ton of CO₂

Electricity generation costs [ct/kWh] vs. Full load hours [h]

- Coal
- OCGT
- CCGT

Wind-Offshore
Wind-Onshore

Source: based on IEA World Energy Investment Outlook 2014 and own assumptions