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Sommario/riassunto

The worldwide deployment of wind power plants is soaring. Yet the availability of their construction materials could be a potential bottleneck. As rare earth elements represent the most critical materials, Anja Brumme provides a market analysis of rare earths, ascertaining that geological scarcity is not the main problem. Instead, the author identifies four kinds of market failure: market power, co-production, by-production and negative externalities. It becomes apparent that the market for rare earth metals is in a state of severe disequilibrium. Subsequently, her estimate of future rare earth demand patterns based on the wind power industry by 2050 reveals that the current level of supply is unlikely to be sufficient in the long run. To allow for a more elaborate analysis, the author suggests two options of including a rare earth side condition in an integrated assessment model. Contents
Classification of Wind Power Technologies Market Analysis of Rare Earth Elements Estimates for Future Rare Earth Requirements from Wind Power Deployment Application to the Integrated Assessment Model ReMIND-R Target Groups Teachers and Students of Economics and Business Administration Executives and Project Managers in Energy Industry and Energy Policy The Author Anja Brumme has studied European Studies and Economics and is currently working as a research assistant at the Chair of Economic Policy at Chemnitz University of Technology.
