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The implications of the rise of clean energy on lithium market dynamics

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ABSTRACT

This research aims to assess the factors surrounding the emergence of markets with the greatest potential for rechargeable lithium battery adoption. The implications of the rise of electric vehicles and electrical energy storage are measured against lithium supply and market pricing. This was resolved by reviewing all available information and comparing it with the intricacies of resources, production and recycling. An analysis of price formation is also undertaken before making assumptions to enable a forecast of future market dynamics until 2030. Electric vehicles will require almost threefold the lithium produced in 2015 by the end of the period considered, with grid storage predicted to follow suit. No geological supply constraints were found, but economic scarcity is a strong possibility. Production is highly vulnerable to disruption due to concentration and the situation is exacerbated by inelastic demand. Recycling may be the most critical means of diversifying and improving supplies.