



Contract design for storage in hybrid electricity markets

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Abstract

Challenges to the term financing of standalone storage in energy-only electricity markets relate to the difficulty of obtaining long-tenor contracts given multiple volatile revenue streams. Government and central agency-initiated contracting and procurement of storage has garnered interest as a means of catalysing adoption and learning curve effects, particularly given the required scale and pace of the decarbonisation objective. Given the complexity of storage operations and multiple streams of value, standard contract forms are yet to emerge. While there is flexibility in the design of forward contract arrangements, flow on effects of design on incentive compatibility in dispatch, risk-trading and investment represent a critically important avenue of investigation. This article establishes six principles for government-initiated contracting and examines the incentive compatibility of storage contract designs. We find that that preferences for structural simplicity in contract design could introduce incentive incompatibility without careful consideration of the interactions between storage operations and investment.

Keywords electricity markets, risk trading, project finance, renewables, energy storage

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