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Abstract: Will the Potential for a Death Spiral in Electricity Rates Hinder Transformation of the Electric Power System?

Much has been written regarding the possibility of an “electric utility rate death spiral” in the United States. As fewer electrons are sold to retail customers due to the flattening of electricity demand and the installation of behind-the-meter generation, electricity rates must increase to cover the fixed costs of transmission and distribution facilities further incentivizing retail customers to install behind-the-meter generation and reduce demand resulting in an ever-increasing spiral in rates. If this death spiral were to occur, it would threaten the financial viability of electric utilities and therefore the operation and maintenance of transmission and distribution subsystems. Numerical examples are presented to illustrate the problem, its magnitude and likelihood. This “death spiral” is not foreordained, and there are several important countervailing forces that may undercut it. Policy responses such as changes in rate design by increasing cost recovery via fixed charges are proposed. Finally, broader implications for the transition of the electric power system are discussed.