

Modeling Virginia's Restructured Electricity Market

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Abstract

We report the results of a Cournot oligopoly model aimed at quantifying the extent to which, Dominion's position in Virginia's power market, would be effectively contested by imports. We find that in the absence of long-term contracts, a capacity withholding strategy could be exercised profitably (and unilaterally) by Dominion. This strategy would result in heavy congestion in the interconnections with adjacent markets. A number of Dominion's plants would therefore be constrained "up" or would be called to produce as "must-run" units, capturing all congestion rents. This suggests the need to maintain some form of economic regulation for these critical plants in the network.

Subject Classification: Energy, Restructured Electricity Markets, Regulation

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