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**Michael C Caramanis\*** (mcaraman@bu.edu), Department of Mechanical Engineering, 110 Cummington Mall, Boston, MA 02215, and **Selin Yanikara**, Boston University, 110 Cummington Mall, Boston, MA 02215. *Optimal Day Ahead Bidding of Forecast Error prone Renewable Generation.*

We consider a day-ahead market clearing process encompassing error prone wind generation forecasts. More specifically, we introduce an endogenous determination of additional reserve requirements that depend on the aggressiveness of wind generation bids measured in terms of the risk of falling short of delivering the generation level in the bid. Conventional and Wind generation along with Distributed Energy Resources (DERs) are co-optimized over a 24 hour day ahead cycle to meet energy balance and reserve requirements. Wind generation is paid for offering energy and is charged for the additional reserve that it imposes as a contingency planning measure when it offers energy forecasts associated with a large error. Optimal risk taking is determined and shown to depend on the combined supply of reserves by DERs and conventional generation. (Received February 20, 2018)