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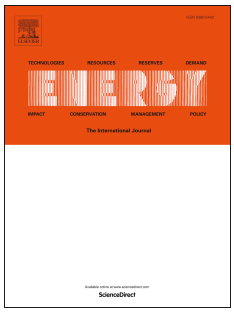

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An integrated model for risk management in electricity trade

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ABSTRACT

This paper presents an integrated model for risk management of electricity traders. It integrates the Unit Commitment (UC) problem, which provides the power generation units' dispatch and the electricity price forecasting of a power system, with artificial neural network (ANN) models, which provide electricity price forecasting of a neighbouring power system by incorporating a clustering algorithm. The integrated model is further extended to estimate the traders' profitability and risk, incorporating risk provisions. The integrated model is applied in bi-directional trading between the Italian and Greek day-ahead electricity markets. The UC and neural network models

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