

Inclusion of frequency nadir constraint in the unit commitment problem of small power systems using machine learning

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Abstract-

As the intention is to reduce the amount of thermal generation and to increase the share of clean energy, machine learning. First, a synthetic training dataset is generated. Then two of the available classic machine learning methods, namely support vector machine, are proposed to predict the frequency nadir. To be able to compare the machine learning methods to traditional frequency

Index Terms- Data-driven method; Mixed integer linear programming; Frequency constrained unit commitment; Machine learning

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