

Unlocking flexibility from third-party resources: decoding the interaction between mechanisms for acquiring Distribution System Operator services

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Abstract-

Purpose of Review

This review explores the interaction between mechanisms for acquiring distribution system operator (DSO) services, such as network tariffs, flexible connection agreements, and local markets, considering their constitutive characteristics represented as design dimensions.

Recent Findings

Mechanisms for acquiring DSO services, such as network tariffs, flexible connection agreements, and local markets, have been recently studied in literature as a way for DSOs to access flexibility from third-party resources. However, they are typically designed as independent entities. Therefore, there is a lack of understanding regarding the interaction between these acquisition mechanisms.

Summary

This work investigates mechanisms for acquiring DSO services, especially focusing on network tariffs, flexible connection agreements, and local markets. These mechanisms, developed to facilitate the procurement of flexibility from third-party resources, are traditionally designed standalone without considering their potential synergies or incompatibilities resulting from their interaction to meet system service requirements. This paper aims to fill this gap by discussing how these mechanisms could interact with an analysis to identify possible synergies and conflicts among them by considering their design dimensions.

Index Terms- Flexibility mechanism · Distribution system operator services · Network tariffs · Connection agreements · Local markets for DSO services

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