



## 分散型エネルギー需給システム推進のための数理手法の開発

Applied Mathematical Methodologies for Promoting Distributed Energy Supply and Demand Systems

世界的に持続可能型社会への移行が大きな課題になっています。少数の大型発電設備と多数の需要家という電力システムの構成は、さまざまな規模の発電設備が内在するシステムへ変化していくと予想されます。こうした分散型のエネルギー需給システムの運用を支える数理手法の開発に取り組んでいます。一般家庭の3電池（太陽電池、燃料電池、EVを含む蓄電池）の運転パターンの最適化から、都市全体のエネルギー需給システムまで、適材適所の数理手法を開発することを目指します。

We are confronted with the need for transition to a sustainable society. The composition of the electric power system, which consists of a few large power generation facilities and a large number of consumers, is expected to change to a system in which power generation facilities of various scales are included. We are working on the development of mathematical methodologies to support the operation of such distributed energy supply and demand systems. Our goal is to develop appropriate methods that can be used for a variety of power management from optimizing the operation patterns of the three storage devices (solar cells, fuel cells, and batteries including EVs) in ordinary households to energy supply and demand systems for entire cities.

### 連携機関

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