

Intelligent Community Energy Storage to Augment the Value of Residential Solar

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Motivation:

- ✧ Homeowner ROI on rooftop solar is often >10 years
- ✧ Feed-in tariffs are declining
- ✧ Solar energy generation is misaligned with residential energy consumption and with peak demand

Research Goals:

- (1) Develop a multivariate time-series algorithm to predict residential energy consumption at the single-home level
- (2) Develop a software system to make real-time, automated decisions for the storage, sale, and purchase of electricity for a residential community with generation capacity and community energy storage (CES)

