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## **Energy Internet Platform**

For Transactive Energy and Demand Response Applications







Local Energy Marketplace

Microgrid Energy Management

## **Key Components and Functionality**

The **Energy Internet** brings an integrated, end-to-end transactive energy platform to micro-grids through three key software components:

- **1. WiseBldg:** BEM Controls' low-cost open architecture energy management platform which leverages automation to intelligently manage energy usage across buildings where it is deployed.
- 2. **WiseMrkt:** A transactive energy marketplace built using secure immutable ledger technology to enable buildings and distribution system operators to transact excess generation from distribute energy resources and demand response capabilities at the building level.
- **3. WiseGrid:** An analytics tool that enables distribution system operators to ensure WiseMrkt transactions can be physically executed within a micro-grid while incorporating distributed energy resources.

In addition to offering fine-grained energy insights, the Energy Internet solution will also provide micro-grid level intelligent applications (load-flow analysis, volt-var) for utilities as part of WiseGrid.



Building-level IOT device control



System Analytics & Insights



Adaptive DER & Demand Response Management



Secure, auditable transaction ledger

## Benefits to Customers and Participants

BEM Controls' Energy Internet offering provides utilities, DER owners and commercial building operators a scalable value creation platform for distributed energy resources and demand response programs. Some key benefits include:

- Utilities and microgrid operators can test and scale transactive energy business models in a digital environment which interoperates via application programming interfaces (APIs).
- End user buildings can monitor and bid excess PV generation and demand reduction capacity via intra-day auctions.
- DSOs can prioritize and incentivize reduction of total building loads at the feeder level during peak events.
- Participants can analyze both their energy consumption and energy transactions within a common platform.