Building Energy Performance
Data Tools Overview

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Building Technologies Office
U.S. Department of Energy
Goal: Integrate energy-related information throughout building lifecycle

**Design**

- Advanced Energy Design Guides
  - Provide sector-specific solutions to construct highly energy efficient buildings
  - Offer tools to reach 50% energy savings above standard code

- Open Studio
  - Assists code compliance
  - Provides design options that incorporate energy use

- Building Component Library
  - Energy model attributes

**Build**

- Energy Asset Score
  - Rates physical and structural building performance
  - Recommends energy efficiency improvements

**Operate**

- ENERGY STAR Portfolio Manager®
  - Tracks actual building energy usage

- Advanced Energy Design Guides
  - Provide sector-specific solutions to construct highly energy efficient buildings
  - Offer tools to reach 50% energy savings above standard code
Goal: Increase availability & consistency of energy-related information

Transmit
- HPMXL Residential Audit
- BUILDINGSYNC Commercial Audit
- GREEN BUTTON Utility Energy Data

Harmonize
- Software that harmonize existing datasets into single platform designed for buildings

Compare
- Public database of anonymized building energy performance
- Dictionary of common terms to ensure interoperability between data tools
Stats

$.30 of every EE program dollar is spent on data collection, management, and verification.

Cities are spending 0.5-1.0 FTEs each year at a cost of $50-100,000 on data needs related to energy benchmarking and compliance.
Our Solution

- Software
- Service
- Community

Standard Energy Efficiency Data Platform

- Helps cities/States streamline data management for building performance programs.
- Easily compile all information on the building stock in one place, match up and reconcile information from different sources, and determine compliance.
- The open source and extensible platform can support apps and connect to website and other software, such as CRM systems and public real estate listings.
Cities participating in the SEED Platform Project

- Washington DC
- New York City
- Philadelphia
- Berkeley
- Orlando
- Atlanta
- Kansas City
- Salt Lake City
- Cambridge
- Minneapolis
- Montgomery County
Building Energy Data Exchange Specification

- Dictionary of terms, definitions, and field formats to facilitate the exchange of information on building characteristics and energy use
- Industry-wide standardization increases the efficiency of business processes and helps grow the market of products and services that utilize energy data
Use the BEDES to:

- Improve data quality and decrease the cost and time involved in aggregating and sharing data
- Exchange data more easily and at lower cost, while increasing data quality by reducing potential translation errors
Buildings Performance Database

- The BPD is the largest publicly-accessible dataset of information about the physical and operational characteristics of real buildings
- >850,000 buildings and >9,000 users
Contact

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