Neighborhood in small town with attached houses in autumn, Clemson, SC USA. *Photo from Getty Images 1353474579*

ResStock™

Residential Building Stock Energy Consumption Dataset

Highly granular, data-driven decision-making for national, regional, and local building stock

Building Stock Characteristic Database + **Physics-Based Computer Modeling** + **High-Performance Computing**

- DOE-funded, NREL-developed models of the U.S. building stock
- Built on EnergyPlus® and OpenStudio®
- 550,000+ models to represent the diversity of the U.S. building stock
- Calibrated to realistically represent hourly end uses
- Modeling of advanced efficient and electric technology upgrades

What's in the Dataset?

Characteristics

- Building Type
- HVAC System Type
- Home Size
- Equipment Efficiency
- Vintage
- Income
- Location
- And Many More…

End Uses

- HVAC
- Lighting
- Water Heating
- Appliances

Data Format

- Individual Load Profiles
- Aggregate Load Profiles
- Individual Building Models
- Metadata
- Annual and Timeseries Results

Outputs

- Energy Consumption and Savings
- Carbon Emissions
- Utility Bill and Energy Burden Impacts

Use the Dataset

- Utility-integrated resource plans and load forecasts
- Electrification planning
- Emissions impact analysis
- Decarbonization analysis
- Policy and rate design

Access the Dataset

- Datasets are released regularly with upgrade measures and packages.
- Access datasets through a web data viewer or online interactive dashboards.
- Download the raw datasets.
- Contact us via email: ResStock@nrel.gov
- Documentation, examples, and recorded webinars of ResStock are available on our website: https://resstock.nrel.gov

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