

Research Dataset Overview and Request Process

The Pecan Street Research Institute (the Institute) operates the nation's largest residential energy dataset. Curated datasets are available to Pecan Street Research Consortium members, Industry Advisory Council corporate members and commercial entities. This page describes the standard process and available datasets for Research Consortium members.

Data Curation Process

The Institute's data is collected from multiple networked devices deployed and owned by the Institute, biannual surveys of participants, custom energy audits and third-party data sources such as weather. Granular energy use data is collected for 8–24 circuits within the home as well as whole home use at 1-minute intervals and, where available, for roof-top PV generation. Raw data is transmitted to the Institute's data center where it is anonymized and stored according to the Institutes' Department of Energy-approved Cybersecurity Plan.

The curation process aligns circuits across multiple homes, groups homes with the same data collection start date, cleans the data and adjusts formats and/or corresponding fields. Each curated dataset includes data for 25 homes and is packaged in month-long blocks. Available datasets include, on a per-home basis:

- Whole home energy (W) use
- Circuit-level energy (W) use for 8–24 circuits
- Interval options of 1 minute, 15 minutes or hourly.
- Home energy audit results
- Sociodemographic information
- Behavioral information
- Electricity pricing trials
- Electric vehicle charging at home on Level 2 chargers
- Photovoltaic generation, oriented by south-, west- and southwest-facing array orientations

- Time-stamped weather

Datasets may be procured in individual monthly sets or through an annual subscription. Annual subscribers will receive monthly delivery of curated datasets at a discounted rate. Custom and combinations of datasets are available.

Pricing for datasets is dependent on the requested amount of data, number of attributes tracked per home, availability and required customization. Pecan Street Research Consortium academic members and Industry Advisory Council corporate members receive significant discounts on curated data sets.

Research Consortium Member Dataset Procurement Process

The standard process for requesting data for Research Consortium members is as follows:

- All individual faculty, students, or researchers that "touch" the data must apply at no cost to the Pecan Street Research Consortium. The membership application is available [here](#).
- Pecan Street Research consortium members are eligible for a free sample dataset that may be requested by contacting Matthew Crosby at mcrosby@pecanstreet.org. To request additional data, please send an email to Matthew Crosby that includes:
 - number of homes
 - attributes
 - data collection frequency
 - time period
 - any other relevant information that will help us match our data to your needs.
- A member of Pecan Street's team will contact you within 48 hours of receiving the data request email to schedule a brief phone meeting to develop a quote for the request.
- The quote expires after 30 days.
- The Institute's General Counsel will provide legal agreements, if needed, related to use of the data.

- Depending on the amount of data requested, a physical delivery process (e.g., data disk, etc.) may be required. Please specify the preferred data format (e.g., .csv, .xls, etc.).

For additional information, please contact Matthew Crosby.