### SHAERE (Sociale Huursector Audit en Evaluatie van Resultaten Energiebesparing) Or (Social Rented Sector Audit and Evaluation of Energy Saving Results)

SHAERE is the energy efficiency monitoring database at the dwelling level of the Association of social housing associations (AEDES). The data is available at the beginning of each calendar year for the previous year including the energy status based on the Dutch energy labelling system. First year 2010.

The data is on average available for more than 50% of the social housing each year (approximately 2 million social houses). SHAERE also covers the actual characteristics of all participated social housing at the end of each calendar year.

The SHAERE energy efficiency label (pre-label data) is different from the label offered by the ministry of the interior and kingdom relations and until 2014, it covers all detailed information for calculating the energy label.

**Energy Labels**

The energy label database includes the energy label of residential and non-residential buildings.

The data is accessible from 2003 until 2017 in time series. RVO also publish daily data of the energy labels.

**Energy use and energy labels**

- Dwellings’ geometry and envelope
- Installations characteristics
- Predicted heating energy consumption
- U-values (thermal transmittance (W/m²K))
- RC-values (thermal resistance, m²K/W) of the envelope elements
- Type of installation for heating
- Domestic hot water (DHW) ventilation

**Energy Saving (or Energiebesparing)**

Resultaten en Evaluatie van Huursector Audit SHAERE (Sociale Energiezuinig)

**SHAERE data files & links**

- https://www.rijksoverheid.nl/onderwerpen/onderzoeken-over-bouwen-wonen-en-leefomgeving/documenten/rapporten/2013/03/20/woononderzoek-nederland-verhuismodule
- https://www.rijksoverheid.nl/onderwerpen/onderzoeken-over-bouwen-wonen-en-leefomgeving/documenten/rapporten/2013/03/20/woononderzoek-nederland-verhuismodule

**Organization**

Association of Dutch Social Housing Association (AEDES)

**More information**

Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
persvoorlichting@aedes.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbus.wooninfo@minbzk.nl
Paula van den Bron
P.I.vandenBrom@tudelft.nl
Arjen Meijer
A.Meijer@tudelft.nl
postbu...
<table>
<thead>
<tr>
<th>What</th>
<th>Short description</th>
<th>Data</th>
<th>Data files &amp; links</th>
<th>Organization</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households features</td>
<td>Building features</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selling price index of the houses based on different types, e.g. owner-occupied</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual energy use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Household characteristics, such as size, age, education, income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data files &amp; links</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ne://CBS/nl/navigatieScherm?thema?themaNr=51300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microdata CBS</td>
<td>This database is not open access, but the organizations, such as universities can make a subscription to use the specific data for research purposes. For instance, the actual energy consumption per individual dwelling with encrypted address is included in the database.</td>
<td>See above</td>
<td><a href="https://www.cbs.nl/en-gb/our-services/customised-services-microdata-microdata-conducting-your-own-research">https://www.cbs.nl/en-gb/our-services/customised-services-microdata-microdata-conducting-your-own-research</a></td>
<td>Central Statistics Netherlands (CBS)</td>
<td>Paula van den Brom <a href="mailto:P.J.vandenBrom@tudelft.nl">P.J.vandenBrom@tudelft.nl</a> Arjen Meijer <a href="mailto:A.Meijer@tudelft.nl">A.Meijer@tudelft.nl</a> <a href="mailto:microdata@cbs.nl">microdata@cbs.nl</a></td>
</tr>
<tr>
<td>Energy use small consumers (Grid operators)</td>
<td>Anonymous energy consumption data of small-scale connections per grid operator in the Netherlands. For gas this is a connection up to and including a capacity of 40 m3 / h and for electricity up to and including a capacity of 3x80 amperes. The file also provides information about the number of smart meters that has been placed per postcode at the time of compiling this data.</td>
<td>energy consumption data per postcode (6 digits)</td>
<td><a href="https://www.energieinbeeld.nl/open-data-kleinverbruiksgegevens-netbeheerders/">https://www.energieinbeeld.nl/open-data-kleinverbruiksgegevens-netbeheerders/</a></td>
<td>Enexis, Stedin, Liander, Co-gas, Westland-Infra, Rendo, Enduris</td>
<td><a href="mailto:info@energieinbeeld.nl">info@energieinbeeld.nl</a></td>
</tr>
<tr>
<td>Monitoring Housing Market</td>
<td>Monitor Housing Market covers data of the owner-occupied sector.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finance and economy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortgages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of transactions of the current and new houses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Price index of the current and new houses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="https://www.tudelft.nl/bk/over">https://www.tudelft.nl/bk/over</a> faculteit/afdelingen/otb/kennlscenra/expertisecentrum-woningwaarde/monitor-koopwoningmarkt/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="https://www.cbs.nl/nl-nl/visualisaties/monitor-koopwoningmarkt">https://www.cbs.nl/nl-nl/visualisaties/monitor-koopwoningmarkt</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OTB - TU Delft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stichting Waarborgfonds Eigen Woningens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hypotheken Data Network</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stichting Stimuleringsfonds Volkshuisvesting Nederlandse gemeenten</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harry Bouwmeester</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:H.J.F.M.Bouweester@tudelft.nl">H.J.F.M.Bouweester@tudelft.nl</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-COMMON (Energy and COMfort MONitoring)</td>
<td>ECOMMON measures, collects, and analyses on indoor air quality, thermal comfort monitoring and energy consumption. In the first phase, 35 houses were monitored during the 2014-2016. In the second phase (2016-2019), attention is on the analysis of the data from the actual energy consumption using smart meter data. Up to now, monitoring is setup in 155 houses which are randomly selected across the Netherlands.</td>
<td>Household composition Age Income Thermostat settings Hours of ventilation in each room Number of showers taken per day Warmth, cold, humidity, and draught of the dwellings in winter and summer</td>
<td><a href="https://www.tudelft.nl/bk/over">https://www.tudelft.nl/bk/over</a> faculteit/afdelingen/otb/onderzoek/onderzoek/eigenwoningen/kwaliteit/energiebesparing-in-woningen/ecommon-opschaler/</td>
<td>Housing Quality and Process Innovation-OTB - TU Delft OPSCHALER consortium</td>
<td>Laure Itard <a href="mailto:L.C.M.Itard@tudelft.nl">L.C.M.Itard@tudelft.nl</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUSLAB database in NL</td>
<td>The SUSLAB living labs provide an environment for testing new products, systems and processes: measuring objective data and collecting feedback from participants. All the data of the monitoring systems of four countries are collected in a database of TU Delft.</td>
<td>Indoor climate • CO2 • Humidity, • Air temperature velocity in homes User behaviour features and their</td>
<td><a href="http://suslab.eu/research/sensor-network/">http://suslab.eu/research/sensor-network/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What</td>
<td>Short description</td>
<td>Data</td>
<td>Data files &amp; links</td>
<td>Organization</td>
<td>More information</td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
<td>------</td>
<td>-------------------</td>
<td>--------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Hague University of Applied Science (The Octalix and Priva database)</td>
<td>These two databases contain monitoring data of the Hague University of Applied Science. Octalix company measures all energy flows in the building: electricity, heating, cooling and ventilation. The sensors also register the movement and the presence of people in the room. The priva database contain the data of outdoor climate, weather temperature, and air installation. It is are large databases. First, for Octalix, 10,000 sensors have been installed, after 2016, the number of sensors have been reduced to 3,000.</td>
<td>daily life practices Preferences in space heating, Presence at home and hot water use.</td>
<td>CO₂ Presence (PIR sensor) Light Temperature Window contact Humidity Weather temperature Air flow</td>
<td>The Hague University of Applied Science Octalix Priva</td>
<td><a href="mailto:j.d.schagen@gmail.com">j.d.schagen@gmail.com</a></td>
</tr>
<tr>
<td>Energy characteristics of TU Delft library</td>
<td>Energy usage data of the Delft University library</td>
<td>Energy usage for ventilation Energy usage for air-conditioning equipment Energy usage for heating equipment Energy usage of other equipment of the HVAC system Data on Wi-Fi connected authenticated devices and estimated occupancy Total energy usage Outside temperature</td>
<td>Casestudy_building21(BTUD)_TUDELFT.xls</td>
<td>Delft University of Technology</td>
<td>Kornelis Blok <a href="mailto:k.blok@tudelft.nl">k.blok@tudelft.nl</a></td>
</tr>
<tr>
<td>Energy use of buildings at the campus</td>
<td>Energy use of all buildings at the campus as of January 2012 on a monthly basis. Additional data on floor area Monthly energy data on the Combined Heat and Power (CHP) plant</td>
<td>Electricity use Natural gas consumption Heat consumption Water consumption CO₂ emissions Primary energy use</td>
<td><a href="http://emonitor.tudelft.nl/">http://emonitor.tudelft.nl/</a></td>
<td>TU Delft</td>
<td>Bart Valks <a href="mailto:b.valks@tudelft.nl">b.valks@tudelft.nl</a> Arnold van Triest <a href="mailto:A.A.vanTriest@tudelft.nl">A.A.vanTriest@tudelft.nl</a></td>
</tr>
<tr>
<td>Commercial Building Energy Dataset</td>
<td>Energy data set from a commercial building (IIITD's academic building in Delhi) One month of smart meter data collected from different sensing points sampled more than once a minute.</td>
<td></td>
<td><a href="http://combed.github.io/">http://combed.github.io/</a></td>
<td></td>
<td>Simone Baldi <a href="mailto:s.baldi@tudelft.nl">s.baldi@tudelft.nl</a></td>
</tr>
<tr>
<td>Meteorological data for the Netherlands</td>
<td>The meteorological data are collected and stored in the Dutch PV Portal 2.0 database. Two types of datasets are available: weather data that reflect the current meteorological conditions, and climate data that reflect the average meteorological conditions at a location over several decades. Data from 46 weather stations in the Netherlands are available, as well as the provincial averages of the 12 Dutch provinces. The source of the data are measurements by the Royal Netherlands Meteorological Institute (KNMI).</td>
<td>Weather data: the weather of today and yesterday with a 10-minute time resolution. Climate data: a dataset of one year constructed from weather data averaged over a multitude of years, with a one hour time resolution.</td>
<td><a href="https://www.tudelft.nl/en/eemcs/the-faculty/departments/energetic-sustainable-energy/photovoltaic-materials-and-devices/dutch-pv-portal/data-portal/">https://www.tudelft.nl/en/eemcs/the-faculty/departments/energetic-sustainable-energy/photovoltaic-materials-and-devices/dutch-pv-portal/data-portal/</a></td>
<td>Delft University of Technology</td>
<td>Olindo Isabella <a href="mailto:o.isabella@tudelft.nl">o.isabella@tudelft.nl</a></td>
</tr>
<tr>
<td>Solar energy production in NL</td>
<td>The Dutch PV Portal 2.0 includes a model to estimate the national solar energy production (NSEP) of the Netherlands. Every 10 minutes the model uses the most recent weather data of all twelve Dutch provinces to simulate the performance of a set of PV systems representative for the national installed capacity.</td>
<td>Annual production Daily production Real-time production Installed capacity</td>
<td><a href="https://www.tudelft.nl/en/eemcs/the-faculty/departments/energetic-sustainable-energy/photovoltaic-materials-and-devices/dutch-pv-portal/data-portal/">https://www.tudelft.nl/en/eemcs/the-faculty/departments/energetic-sustainable-energy/photovoltaic-materials-and-devices/dutch-pv-portal/data-portal/</a></td>
<td>Delft University of Technology</td>
<td>Olindo Isabella <a href="mailto:o.isabella@tudelft.nl">o.isabella@tudelft.nl</a></td>
</tr>
<tr>
<td>What</td>
<td>Short description</td>
<td>Data</td>
<td>Data files &amp; links</td>
<td>Organization</td>
<td>More Information</td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
<td>------</td>
<td>-------------------</td>
<td>--------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Nationale Milieudatabase (National Environmental Database of Building Construction Quality)</td>
<td>The NMD includes product/item cards that are used by several calculation instruments used to calculate the environmental performance for buildings (B&amp;U) or civil engineering works (GWW). The database includes data that are accessible through instruments such as DuboCalc, GreenCalc en GPR.</td>
<td>Brand data Generic data (brand-less) Generic data (brand-less) and not verified</td>
<td>pv-portal/national-solar-energy-production/</td>
<td>Stichting Bouwkwaliteit Nationale Milieudatabase</td>
<td><a href="mailto:milieudatabase@bouwkwaliteit.nl">milieudatabase@bouwkwaliteit.nl</a></td>
</tr>
<tr>
<td>Quby Database</td>
<td>Database provides smart energy data from over 350,000 households across Europe (Netherlands and Spain) and enables getting access to real-time energy insights. About 140 variables have been collected for a broad range of households over ten years. The data is anonymized and from for instance the thermostat, the boiler, electricity meters, and gas meters, with granularity of 10 seconds for most parameters.</td>
<td>Gas consumption Electricity consumption Electricity production by solar panel Boiler parameters Thermostat Smart plug</td>
<td><a href="https://issuu.com/quby.com/docs/whitepaper_toon_data_research_april">https://issuu.com/quby.com/docs/whitepaper_toon_data_research_april</a></td>
<td>Quby outsmarting energy</td>
<td><a href="mailto:stephen.galsworthy@quby.com">stephen.galsworthy@quby.com</a></td>
</tr>
<tr>
<td>Platform 31 database technical monitoring</td>
<td>Database holds information on energy-efficient homes over the period 2013-2016.</td>
<td>Energy flows Temperatures Meteo data per KNMI Characteristics per project and building</td>
<td><a href="https://www.energielinq.nl/">https://www.energielinq.nl/</a></td>
<td>TNO RIGO - Van Beek consortium</td>
<td></td>
</tr>
<tr>
<td>Geodata to match demand and supply of heating and cooling</td>
<td>Data will be collected for Europe on: Direct &amp; Indirect solar irradiation Land use of biomass Crop yield per ha Effluent per person per day</td>
<td>Not yet available, data are currently collected</td>
<td></td>
<td></td>
<td>Michiel Fremouw <a href="mailto:m.a.fremouw@tudelft.nl">m.a.fremouw@tudelft.nl</a></td>
</tr>
<tr>
<td>Preference of citizen related to heating options</td>
<td>Survey data collected with the PVE (Participatory Value Evaluation) tool on preferences/choices related to heating options in homes</td>
<td>Not yet available, data will be collected in the coming years</td>
<td></td>
<td>TU Delft</td>
<td>Niek Mouter <a href="mailto:n.mouter@tudelft.nl">n.mouter@tudelft.nl</a></td>
</tr>
</tbody>
</table>