

# How Wiser Energy™ makes the loadcentre smart.

The smart technology behind Wiser Energy.

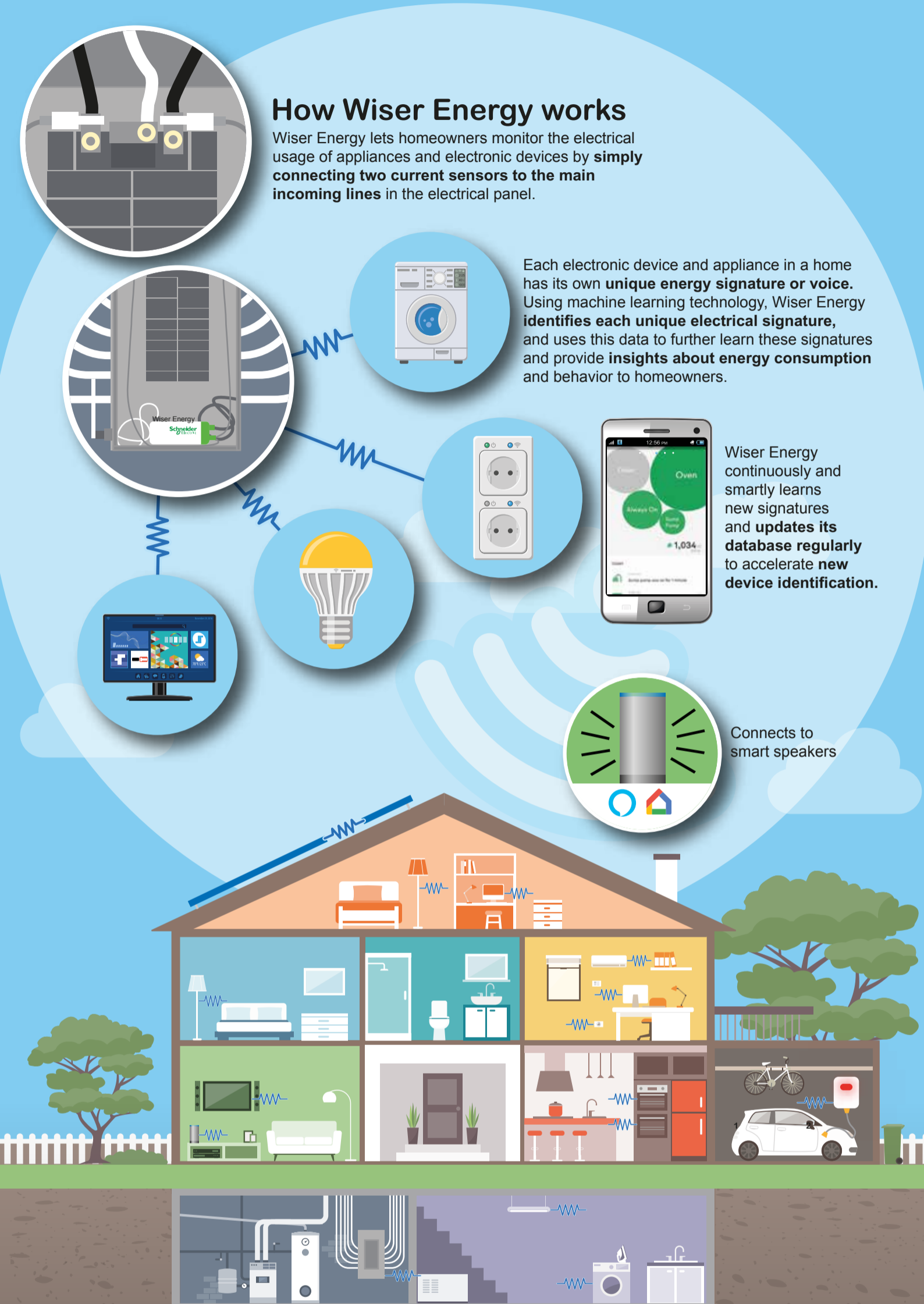
## How Wiser Energy works

Wiser Energy lets homeowners monitor the electrical usage of appliances and electronic devices by **simply connecting two current sensors to the main incoming lines** in the electrical panel.

Each electronic device and appliance in a home has its own **unique energy signature or voice**. Using machine learning technology, Wiser Energy **identifies each unique electrical signature**, and uses this data to further learn these signatures and provide **insights about energy consumption** and behavior to homeowners.

Wiser Energy continuously and smartly learns new signatures and **updates its database regularly** to accelerate **new device identification**.

Connects to smart speakers



## How the technology works



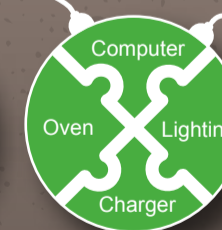
Wiser Energy samples data at 1MHz and around **4 million data points per second** to build a detailed library of device signatures



Wiser Energy continuously samples the current and voltage at **1 million times/second**. It uses this information to detect changes in magnitude, frequency, and phases.



Information is processed in the cloud. **Machine learning algorithms** analyze this information and look for devices in home electrical signals.



Once the algorithm is identified as an individual device, a **model is created to track this device** and provide information about its energy usage.



This model is sent back to the Wiser Energy monitor so that the device is **monitoring this information locally**, while the servers continue with the analysis.



**Crowdsourcing enables homeowners to constantly add their inputs to the device detection capabilities**, accelerating the device detection process to track this device and provide information about its energy usage.