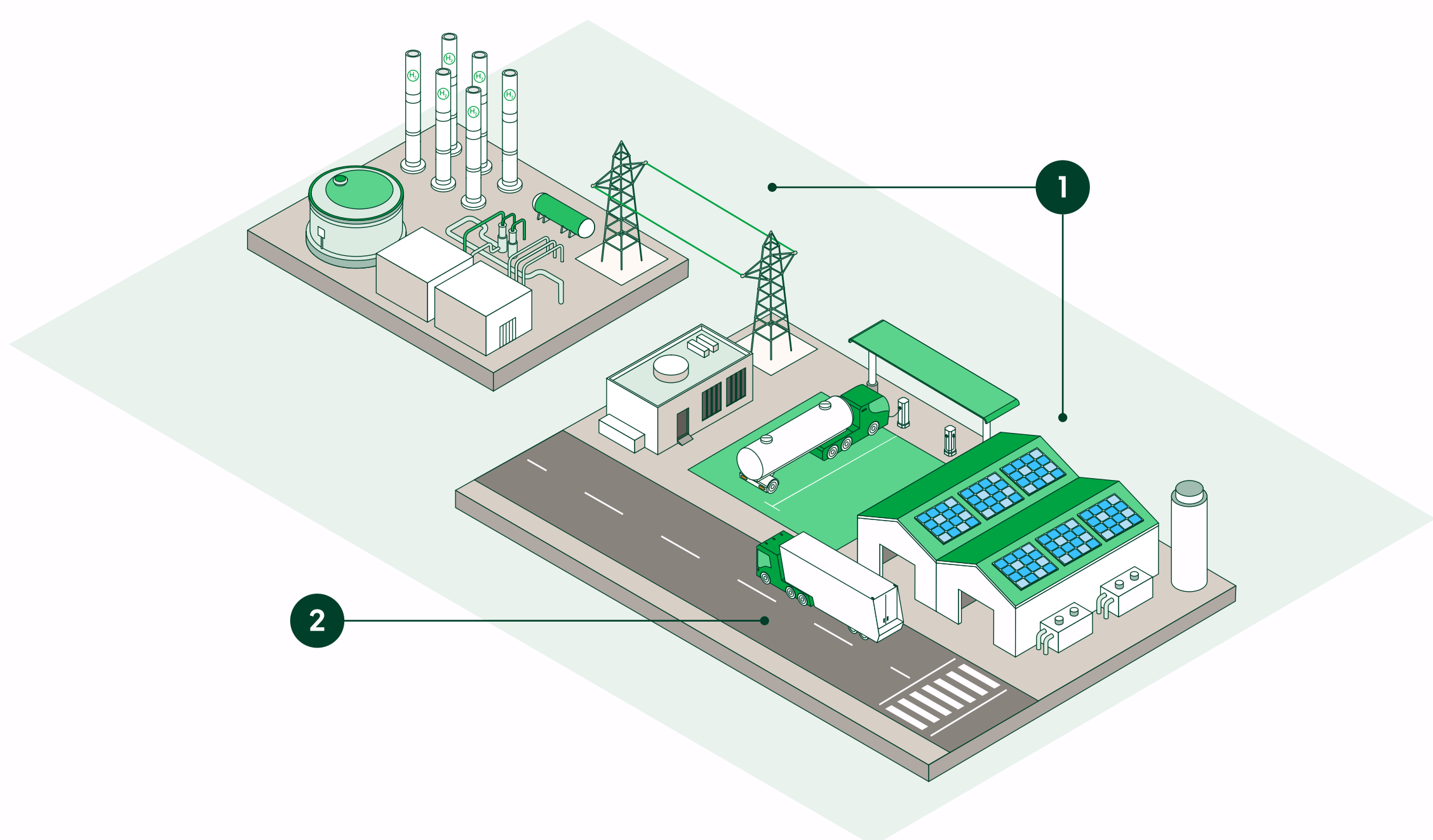


Through electrification

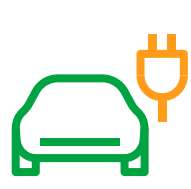


1 Process electrification



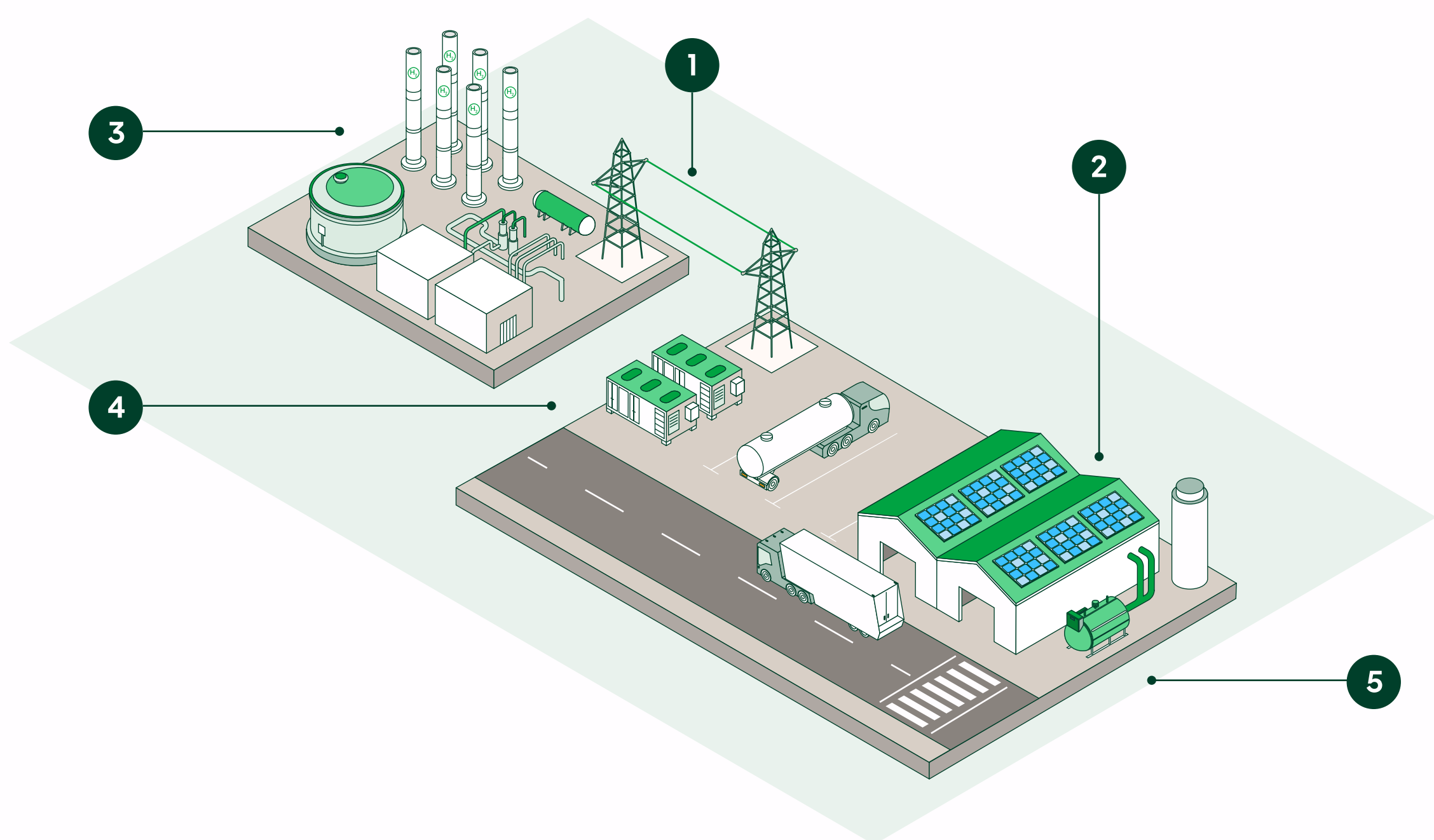
This option envisages replacing heat generation sources that produce emissions with **processes electrified** (directly or indirectly through green hydrogen) with **renewable energy**, both supplied by self-consumption facilities and by other renewable generation sources over the grid.

2 Electric mobility



The aim is to replace combustion vehicles with **electric vehicles**, providing the infrastructure of charging stations and ensuring **recharging with 100% renewable electricity**. These cars emit hardly any polluting waste and are a more efficient option to reduce traffic in cities.

Through renewables



1 By signing PPAs



One of the most efficient ways for industrial groups to reduce their carbon footprint, especially in terms of electricity consumption, is to switch to a **fully renewable energy** supply (both wind and solar photovoltaic).

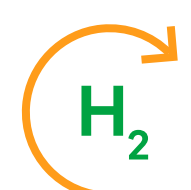
This energy development is possible by **signing a Corporate Power Purchase Agreement (CPPA) or a long-term power purchase agreement** whereby Iberdrola undertakes to **directly supply a company with the electricity produced by a renewable facility**.

2 Self-consumption



Industrial **photovoltaic self-consumption** is a self-consumption model aimed at large companies and industrial SMEs. The installations are similar to those of large **photovoltaic** plants prepared to sale to the grid, but in this case, the panels are installed on the roof and are intended to generate energy that will be consumed directly by the company's facilities. Industrial self-consumption is considered a key to industrial decarbonisation.

3 Use of green hydrogen



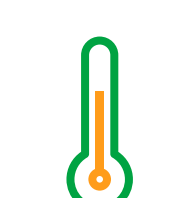
Incorporating **green hydrogen** into industrial processes opens the door to more sustainable production: it is a clean energy source that **emits only water vapour and leaves no residues in the air**, unlike coal and oil. Producing it would save the hundreds of millions of tonnes of CO₂ per year from gas produced by fossil fuels.

4 Use of batteries



This practice envisages the inclusion of **battery energy storage systems (BESS)**. The benefits of this option include efficiency, savings and sustainability by allowing for renewable sources and reducing consumption.

5 Using heat pumps

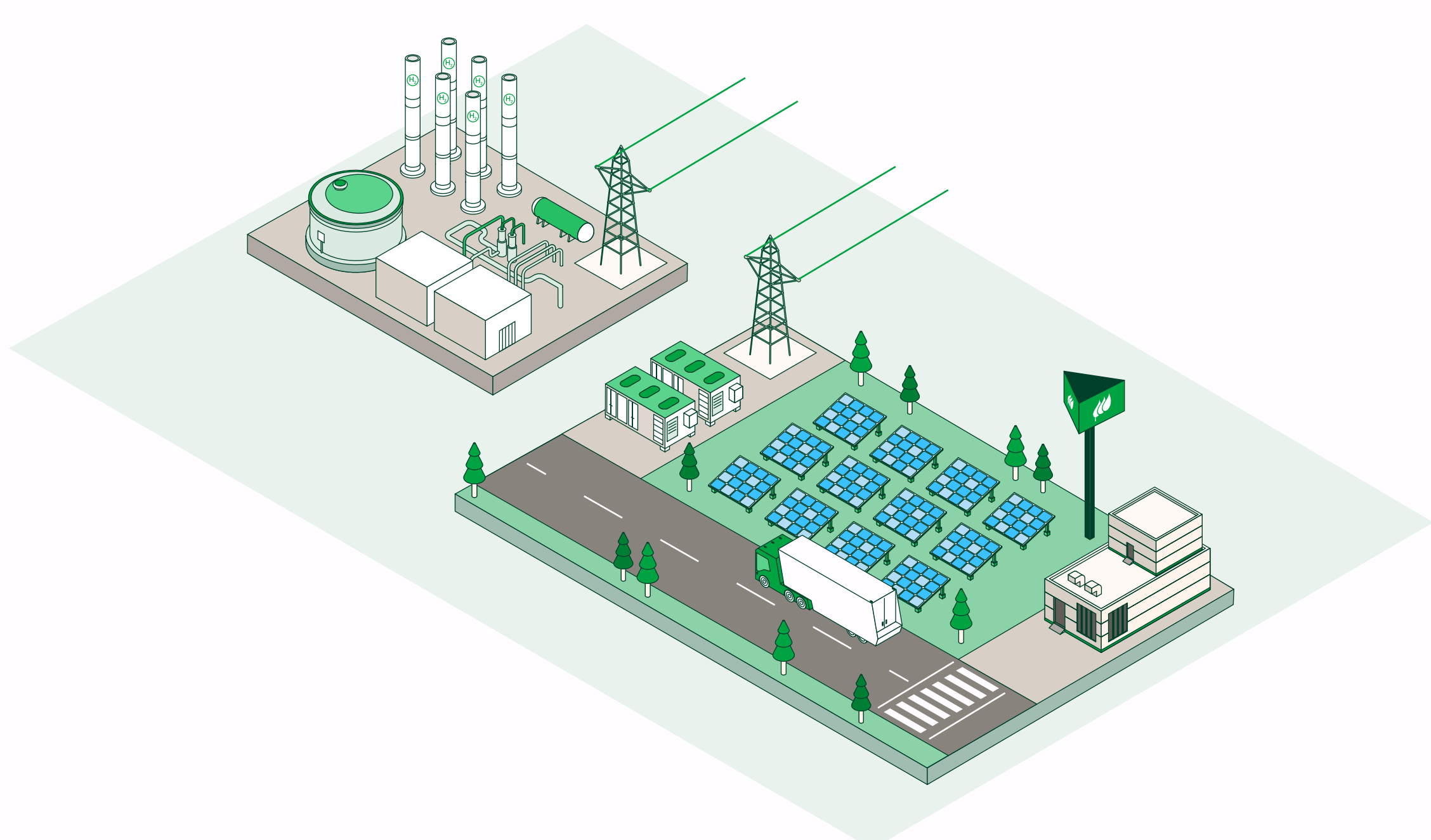


This option envisages replacing the air conditioning or hot water generation systems of industrial processes that produce emissions with others based on **heat pumps**. This thermal machine allows heat to be pumped from a cold point to a hot point, **using renewable energies such as ambient thermal energy from air, water or soil, or waste energy from the industry itself**.

It can be applied to heating, air conditioning and domestic water, as well as to all industrial processes with temperatures below 120 °C, such as processes in the food industry or paint drying.

Heat pump technology is being developed and the working temperatures are increasing all the time, so that in the near future projects, even generating process steam, may be feasible.

Giving your sites a second life



* At Iberdrola, we open the door to building renewable projects (photovoltaic or storage, etc.) on vacant or abandoned land where industrial activities no longer take place.



Most often, these sites are an obstacle on the road to the energy transition, as they have an impact on costs related to site safety, environmental monitoring or decontamination obligations. Giving them a second life reduces their impact on the environment and, in turn, offers the opportunity for a local, emissions-free energy supply.