

Towards cross-border energy transition!

The municipalities of Emmen and Stadt Haren (Ems) want to form one regional cross-border energy market, so that the proceeds of the energy transition will stay in the region. Our approach is an example for Europe for using sustainable energy. We benefit from each other by sharing!

Sustainable energy is optimally used in the Smart Energy Region of Emmen-Haren by exchanging it beyond the border. If there is an excess in Haren, it can be used in Emmen and vice versa.

This will achieve the following:

- ✓ Energy transition in the region will be sped up.
- ✓ The regions can benefit from price differences between the Netherlands and Germany.
- ✓ The costs of the energy transition in the region will be lower than outside of it.

To realise this, 'free traffic' of electricity between the Netherlands and Germany is required. This is currently not yet permitted within the EU, but that is going to change. SEREH is ground-breaking, because it is in anticipation of new regulations in the EU.

Power surplus

Windmills and solar panels in Emmen and Haren (Ems) sometimes produce more electricity than the network can handle. **Especially in Haren (Ems), more sustainable electricity is produced than is used.** Windmills and solar panels are then often stopped, or the electricity is sold at lower prices to stimulate electricity consumption. A lot of money is also spent on network management.

Emmen has a lot of industry and greenhouse horticulture that could make good use of the peaks in the production of sustainable electricity. With cross-border exchange of sustainable energy, we can speed up the energy transition in both municipalities and we can build a more sustainable, more efficient and cheaper energy system.

Hydrogen plant conversion

In Emmen, the closed gas purification plant (GZI) will be converted into a hydrogen factory. In Haren (Ems), a trial field for the storage of sustainable energy, where hydrogen is also produced, is being planned.

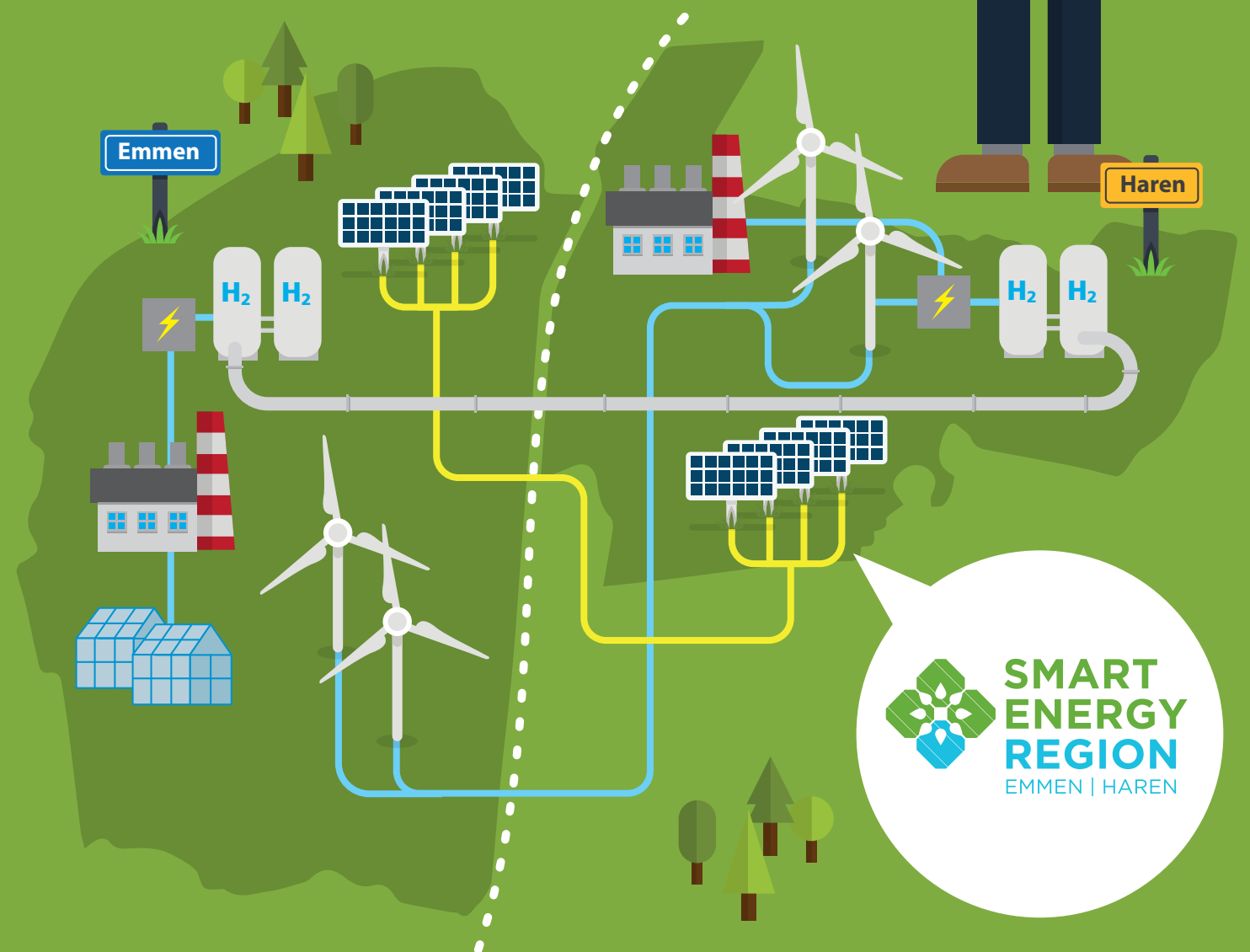
For the production of affordable hydrogen, a lot of cheap, sustainable electricity is required. This is available when windmills and solar panels produce more than the network can handle and there are regional surpluses.

Exchanging those surpluses cross-border, will enable the Emmen-Haren region to gradually replace natural gas with affordable and sustainable hydrogen gas.

Combine wind farms

- 📅 Wind farm planned on the Netherlands side
- 🔧 New wind farm in development on the German side

When the wind farms on both sides of the border are connected to each other, there will be a connection between the Dutch and the German networks. This can then be used to exchange electricity between Emmen and Haren (Ems).



SMART ENERGY REGION
EMMEN | HAREN