

## **Energy Strategy of De Lelystadse Boer**

We feed millions of people every day. And soon? Soon, we will also provide energy for our own region. Because when you cultivate 3,500 hectares of land, you don't just have the best agricultural products in the Netherlands. You also have wind, sun, and space. And we want to do something with that.

By 2050, the De Lelystadse Boer area will be a self-sufficient energy region. This is not a dream—it's our plan. We have the land, we have the knowledge, and we have each other. Just as we became Europe's vegetable garden together, we will become the testing ground for sustainable energy together.

Farming well remains our craft. But farming well also means looking ahead—for ourselves, for the region, and for the generations after us.

### **Vision**

By 2050, the De Lelystadse Boer area will be a self-sufficient energy region where (agricultural) businesses can freely use the sustainably generated energy in consultation. The region will be off-grid, with a robust closed distribution system (CDS)—meaning generation, storage, distribution, and use will be managed cooperatively. We believe in local ownership.

In doing so, we contribute to the growth of business activity (€1,570 per capita) and employment (5%) in the Province of Flevoland[1]. We make a substantial contribution to reducing grid congestion and to the sustainability of Flevoland society, particularly in agriculture.

### **Value Proposition**

"The energy transition cannot happen without you"—that's the slogan of Alliander in a major employer campaign.

We also believe that the energy transition cannot happen without us. We have the capacity to generate large amounts of energy from renewable sources (wind, solar, biogas). The largest onshore wind farm is no coincidence in a Flevoland agricultural area. The region's huge potential is crucial not only for meeting the city's energy demand but also for rural employment and economic growth.

Back in 2016, businesses in our area made it clear: we can and want to be off-grid and self-sufficient here, and the participation of local agricultural companies is essential.

Now we are ready; we see the opportunity for an energy-independent region in Flevoland.

### **Strategy**

#### **1. Tailored Technological Solutions**

Energy solutions for agricultural businesses require customization. Enterprises differ in type and nature (dairy, arable, poultry, mixed, organic or conventional, with or without on-site storage), prior energy investments, and business vision. Technological innovations and possibilities evolve rapidly. Tailored solutions are needed to determine the most suitable energy supply and technology for each business.

## 2. Fully Utilize Potential

There is also untapped potential. Currently, agricultural businesses in our area supply energy from solar ( $\approx 7.5$  MW), wind ( $\approx 13.5$  MW), and biogas installations. We assume this represents only one-third of the potential, which could be increased by an additional 42 MW through small wind turbines and more rooftop PV panels.

This energy is not always available at the right times. With the phasing out of the net metering scheme, it may be better for entrepreneurs to switch off their systems. By storing energy themselves (battery and/or hydrogen) and sharing it, we contribute to Flevoland's energy transition.

## 3. Collaboration

A key success factor is the willingness and ability to collaborate. De Lelystadse Boer (2016) is a network organization—we are already organized. We know each other and our partners: Lelystad Airport (LA) and Lelystad Airport Businesspark (LAB), with whom we have collaborated for several years.

The city of Lelystad can benefit from the proximity of the De Lelystadse Boer rural area with sustainable ambitions, helping to achieve its own energy sustainability goals. Sustainable energy replaces fossil fuels, the energy region provides employment and economic development, and contributes to energy security.

### What Is needed to realize the vision?

Achieving the goal requires cooperation among all stakeholders. Our governments (Province of Flevoland and the Municipality of Lelystad, as well as the national government), our businesses, regional companies, energy companies, and grid operators (Liander and Tennet) must develop a plan and jointly work toward solutions. The province can play an initiating and facilitating role.

### What Can We Do?

Over the next five years, we aim to implement the following projects:

- **2025:** 15 businesses receive tailored advice on making their operations self-sufficient with innovative green energy systems (Project 1).
- **2026:** At least 5 leading companies start hydrogen production and energy storage.
- **Years 2–3:** Make clusters of (agricultural) companies self-sufficient through an energy cooperative, with the grid operator's role and smart software to balance supply and demand among companies. This will result in a full-area schedule and EMS system providing each company with sufficient capacity for consumption and generation.
- **Years 3–4:** Enable agricultural companies to generate more wind and solar energy where current grid congestion prevents it.
- **Years 3–5:** Explore and implement options to supply partners LA, LAB, and the city of Lelystad with sustainably generated electricity and/or green hydrogen.
- **Year 5:** Operational CDS in the De Lelystadse Boer area, where (agricultural) businesses and households generate, share, distribute, and use their own green energy.

[1] They will benefit from employment growth up to 4.9% and added value of €1,570 per capita by 2050, Bertelsmann Stiftung, Binnenlands Bestuur, December 2023.