GEMEENTE EEMNES

LEF IN EEMNES

Renaissance
RENEWABLE INTEGRATION & SUSTAINABILITY IN ENERGY COMMUNITIES

Contacts

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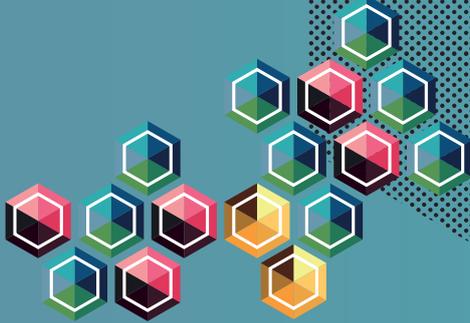thierry.coosemans@renaissance-h2020.eu

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Eemnes pilot

The town of Eemnes aims to be energy-neutral by 2030. This pilot will validate a local, blockchain-enabled, peer-to-peer energy market in an operational environment. During the first three years, there will be between 100 and 200 participants consisting of households, local businesses and farmers.
The ambition is to scale up to 1000 participants within Eemnes over a period of 10 years.
The demonstrator will include high energy-efficient dwellings and several municipal buildings.

Consortium

VUB VRIJE UNIVERSITEIT BRUSSEL

Atos

ikerlan

deepblue consulting & research

circe RESEARCH CENTRE FOR ENERGY RESOURCES AND CONSUMPTION

everis ingeniería

oca MANZANEDA ESTACIÓN DE MONTAÑA

DEMOCRITUS UNIVERSITY OF THRACE

CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS

BAX & COMPANY

sdm elektro

NAPE NATIONAL ENERGY CONSERVATION AGENCY

ABB

Sunamp

GEMEENTE EEMNES

Supporting organisations

BAX & COMPANY

i.LECO

EEMNES ENERGIE

ENERGYZERO

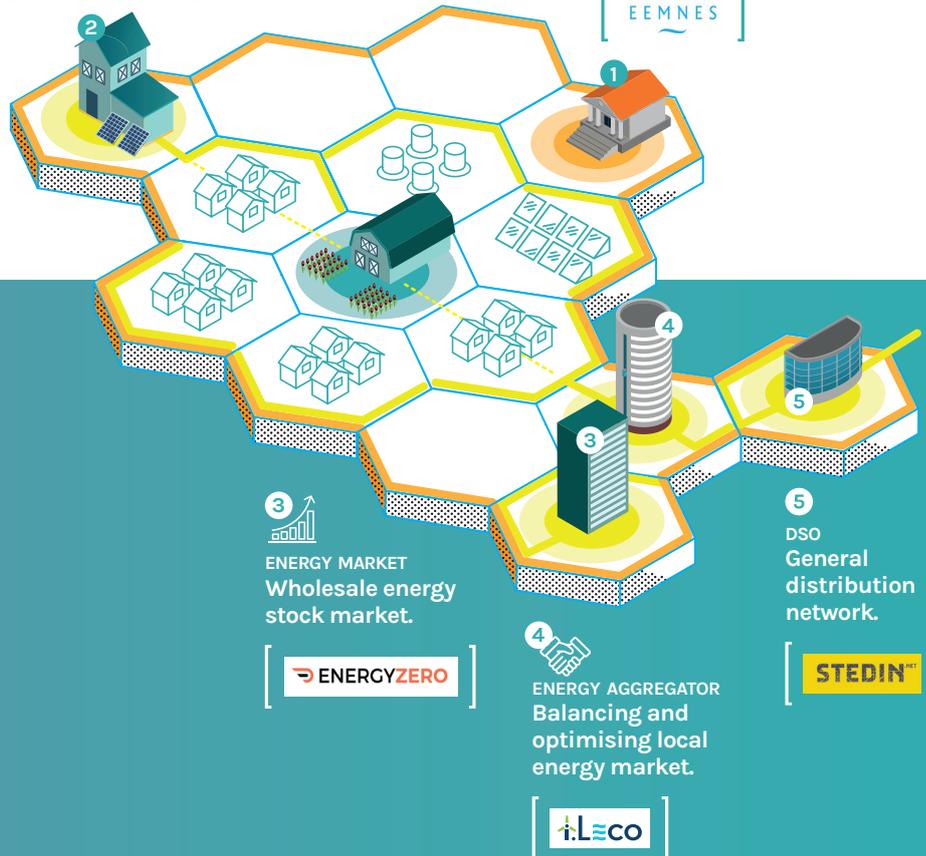energie VAN NU

Suburban municipality

EEMNES, NL

The Eemnes pilot was granted an exemption from Dutch Electricity law in order to operate a first European citizens-centred community energy trading market.

CONTEXT

Energy is mainly generated outside the community where it is consumed. This system is inherently inefficient and costly in energy transmission and distribution. The RENAISSANCE project supports the ambitions of the European energy transition. It will deliver a proven community-driven approach which is scalable and replicable globally, using four initial pilot sites around Europe.

2
LOCAL ENERGY SERVICE PROVIDER
Supplying energy through smart contracts.

EEMNES ENERGIE

ENERGYZERO

1
PUBLIC AUTHORITY
Ensuring public interest.

GEMEENTE EEMNES

OBJECTIVES

Connect between 100 and 1000 active consumers in a local, self-sustainable energy market.

Validate the business case for a local flexible energy market connecting prosumers and consumers and larger industry players.

Encourage homeowners to install more PV panels on their roofs, directly reducing CO2 emissions and helping Eemnes get one step closer to its goal of being energy-neutral by 2030.

3
ENERGY MARKET
Wholesale energy stock market.

ENERGYZERO

5
DSO
General distribution network.

STEDIN.NET

4
ENERGY AGGREGATOR
Balancing and optimising local energy market.

iLECO

Stedin, regional distribution system operator looking for new solutions to reduce the costs of network upgrades.

Eemnes Energie, a cooperative partnership focused on generating sustainable energy and helping to save on energy consumption.

iLECO platform enables the local energy market and local market using flexible pricing and provides community access to the wholesale markets.

EnergieVan as the energy transition expert stimulating action for the Energy transition in the region.

Through the white labeled energy retailer EnergyZero, Eemnes will access the wholesale energy EPEX Spot Market.

Innovative features of the pilot

Flexible Pricing

The local energy market is operationalised through the use of market algorithms and distributed ledger technology that makes local energy trading possible in real time and under flexible pricing and to defer expensive network investments.

Layered Model

Through the layered energy system market mechanism, Eemnes will be connected as one entity to the external energy markets, connecting both local and national markets acting as the link between local and international.

Empowered citizens

Reduced electricity bills for consumers and revenues for prosumers through customers that are empowered to manage and optimise their energy transactions on the iLECO trading platform.