

Biobased Economy Park Eindhoven

A business case for developing biobased business linked to the heat grid of RWE in the city center of Eindhoven

Background

Energy company RWE/Essent operates a heat grid in the city center of Eindhoven. The demand of heat has fallen sharply in recent years due to energy savings and companies that have left the area. The power plant which runs on natural gas has too much capacity and the CHP unit is even shut down because it is too expensive to operate it. Together with several partners RWE made a master plan to make the heat grid more feasible and sustainable in the future by: 1. Balance supply and demand of heat (RWE), 2. Replace natural gas by a biofuel (BTG) and 3. Develop a (series of) biobased economy park(s) linked to the heat grid (SRE).

Biobased economy Park Eindhoven

The subproject Biobased Economy Park Eindhoven focusses on the development of new and expanding biobased activity linked/related to the heat grid in the city center of Eindhoven. In the area of the heat grid several business parks and industrial estates are situated that can focus (more) on adding value to biomass waste and residues. These kind of activities need heat from the existing RWE/Essent heat grid for example to dry biomass before processing it. The other way around biobased activities can produce energy/heat or have a surplus of heat that can be deposited on the existing grid. There is even a perspective that biofuel can be produced in the area to provide the power plant (CHP) with biobased fuel/energy. The initiative fits really well with the initiative of various stake holders to develop a circular economy with Eindhoven Brainport technology, regional available biobased residues (food/agro) and application of produced materials (fuels) in the same area.

Project development plan

SRE city region of Eindhoven wrote a project development plan supported by Interreg NW Europe and the BioenNW project together with all relevant stake holders. Besides RWE and BTG various companies, governments and knowledge institutes formed a TKI cluster (Top Technology, Knowledge and Innovation cluster). Main goal of the project is to identify the most feasible biomass business chains in the region by:

1. What is exactly the geographical demarcation of the area, which companies and estates are situated in the area, which opportunities and (spatial and legal) space offers the area for new/expanding biobased activity?

2. What biomass waste and residues are available or can be made available in an economical and environmental feasible and “responsible” area (radius of about 30 kilometers)?
3. What (proven) technologies are at hand to win valuable raw materials from these (selected) biomass residues and see how biomass chains look like: biomass, processing, logistics, biobased raw materials, marketing?
4. What are the five most economically promising business cases and develop (global) project plans with a focus on the value added to the regional economy, financial feasibility, sustainability (ecological), location (spatial, permits), technology and application / marketing products and waste streams?

Organization and financing

The project development plan “Biobased Economy Park Eindhoven” consist all relevant variables to carry out the project:

- Background
- Project goals and results
- Activities
- Organization and project management (including roles in the project for all stake holders)
- Planning
- Resources
- Communication

Retrospect

A subsidy was needed to carry out this project with a volume of almost 150.000 euro’s. End of 2012 the grand was requested by national government (TKI) but early 2013 the message s was received that unexpectedly the request was rejected. SRE started activities to find other resources and keep the coalition in state. A few months later however RWE decided to sell the power plant including heat grid. And the coalition fell apart.