

1,6 MW biogas plant in Balatonszabadi

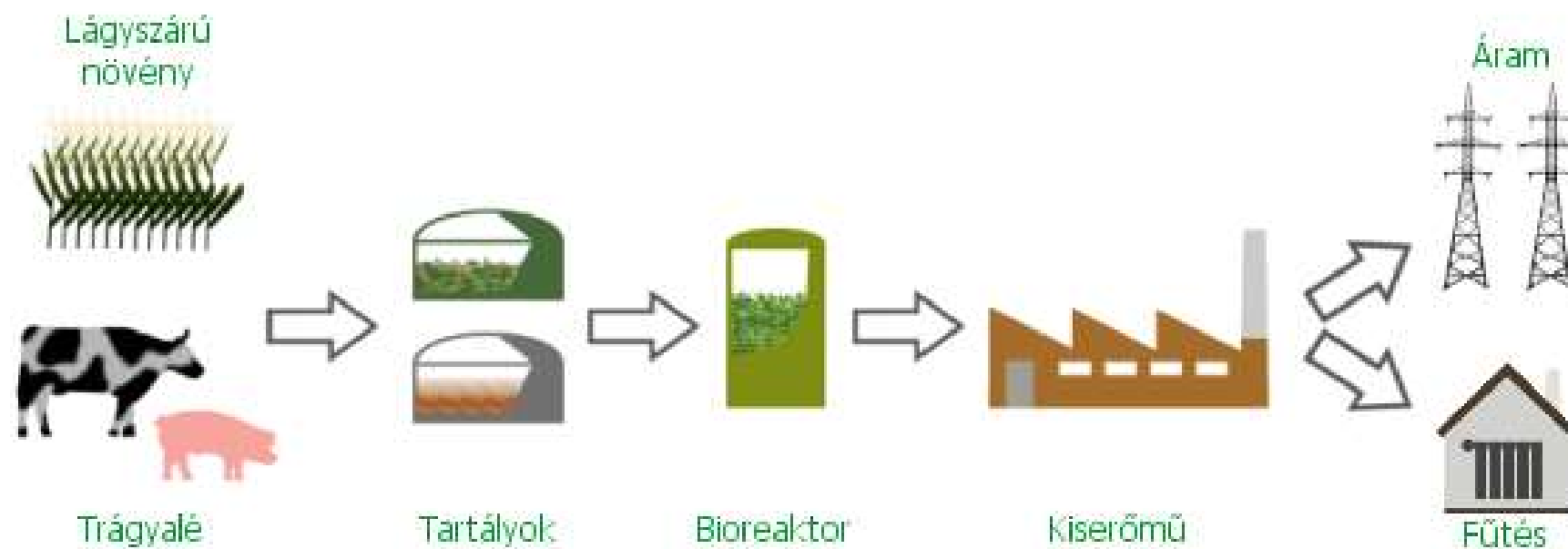
Project Promoter: ENERGREEN Ltd.

Adam Ragoncza – project manager
Nawaro Ltd.

2018.06.19. Balatonfüred

EEA Grants Program 2009-14

Utilization of biogas



Project introduction

- **The goal of the project:**

Construction of 1.6 MW_e –biogas plant in Balatonszabadi

to utilize dairy cattle manure and energy crops of the surrounding arable land – wastes later

Implementation period: summer 2016.– 30th April 2017.

General contractor: NaWaRo Ltd

- **Technology supplier: ASEMA Ltd**

Project introduction

- **Total budget:** **4,8 million EUR**
 - Hard costs: 4,7 million EUR
 - Publicity: 10.000 EUR
 - Project management: 90.000 EUR
- **Financing:**
 - EEA Grants: 2 335 887 EUR
 - Own sources: 2 456 373 EUR

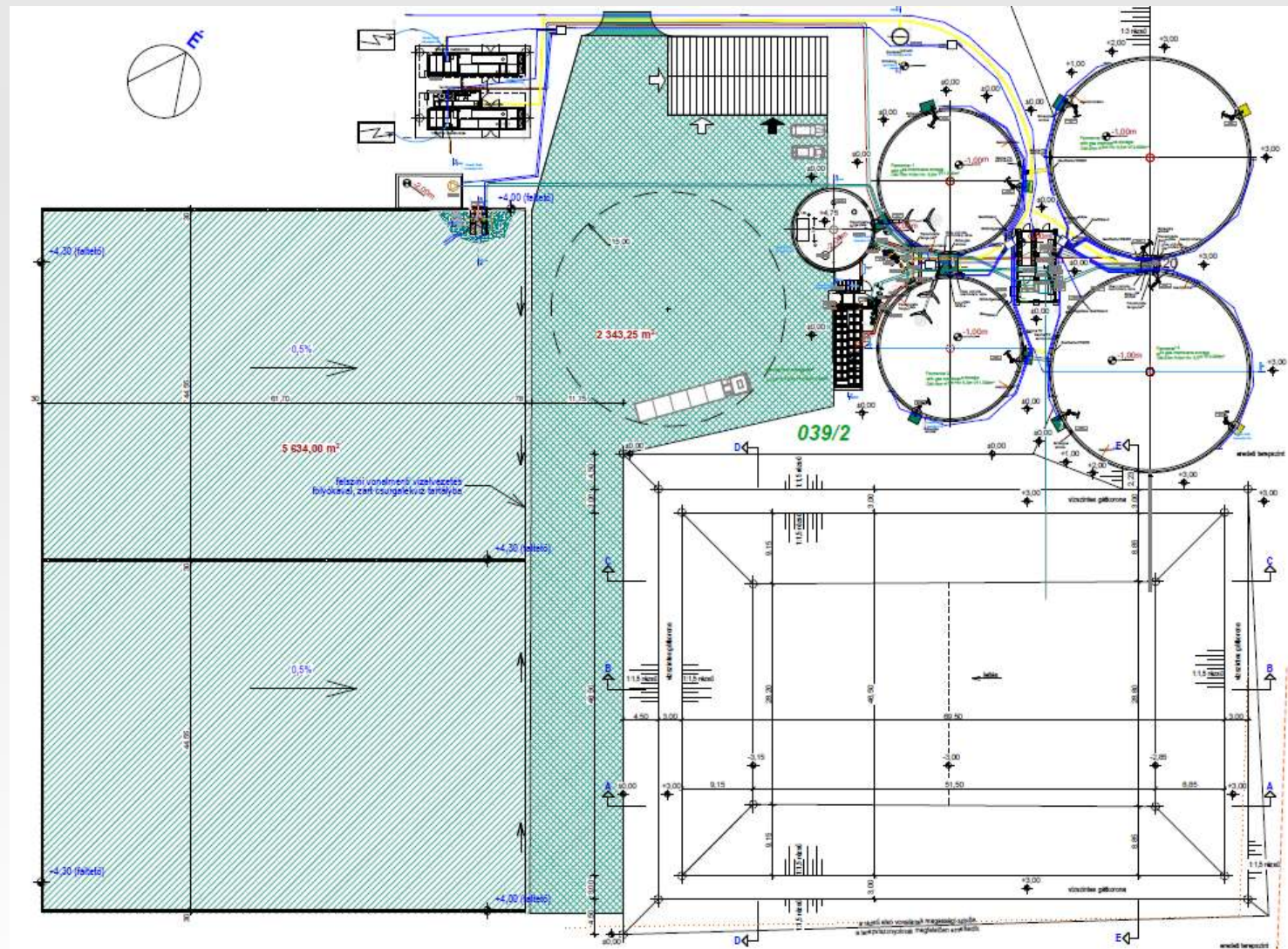
Time frame of the project I.

- **Project preparation (2005 Q2 – 2016 Q2):**
 - Search for location
 - Project planning and development
 - Searching for funds
- **Planning and licencing (2009 Q2 – 2016 Q4)**
 - Final design
 - Tendering, contracting
 - Financing
 - Final licencing

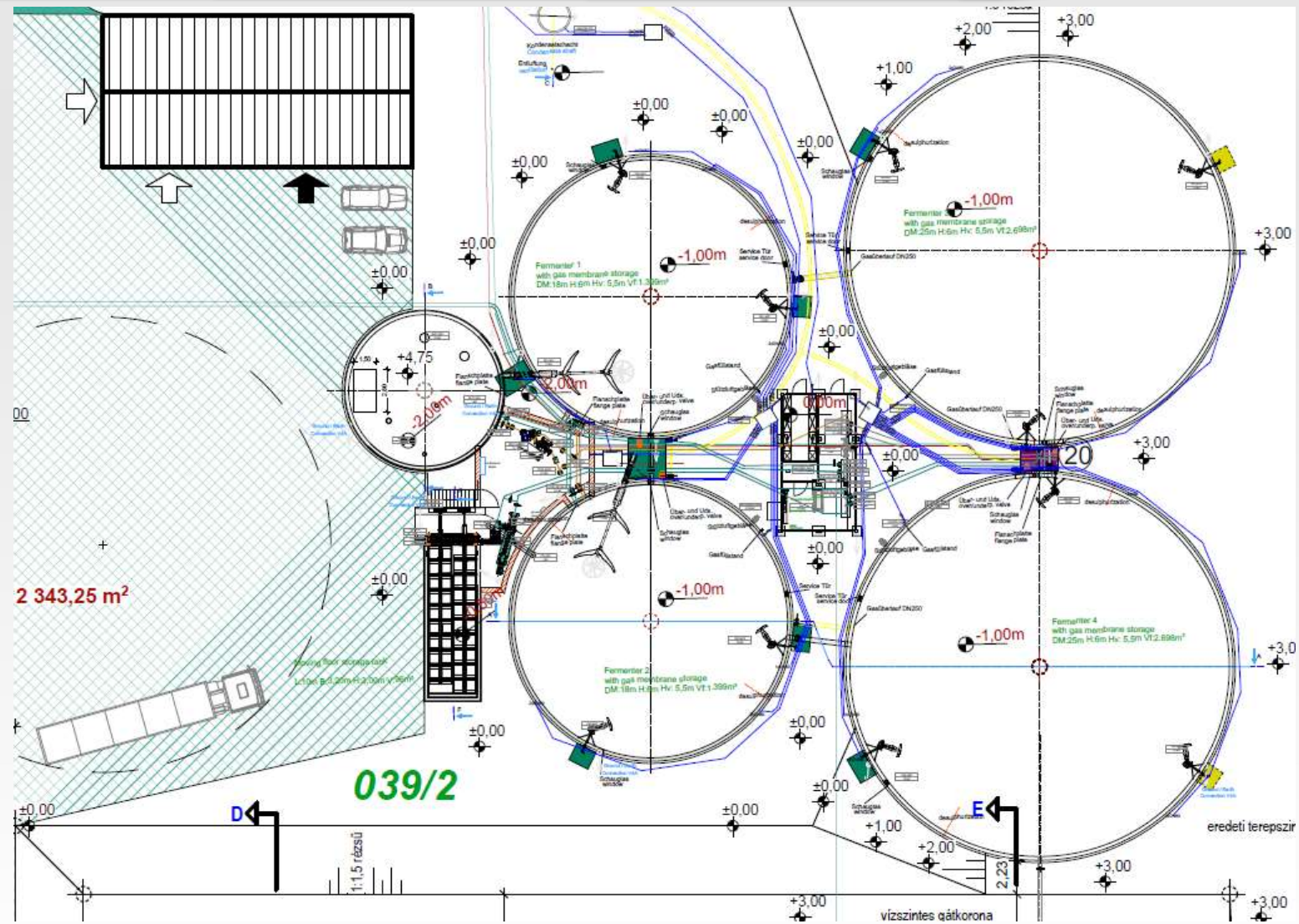
Time frame of the project II.

- **Implementation period(2016 Q4– 2017 Q2)**
 - Construction works
 - Earthworks
 - Concrete works–
 - 8.800 m³ fermenter volume
 - 6.000 m² silage storage area
 - 12.000 m³ end storage tank
 - 200 m² hall
 - Biogas technology construction works
 - Electrical works
 - Infrastructural works

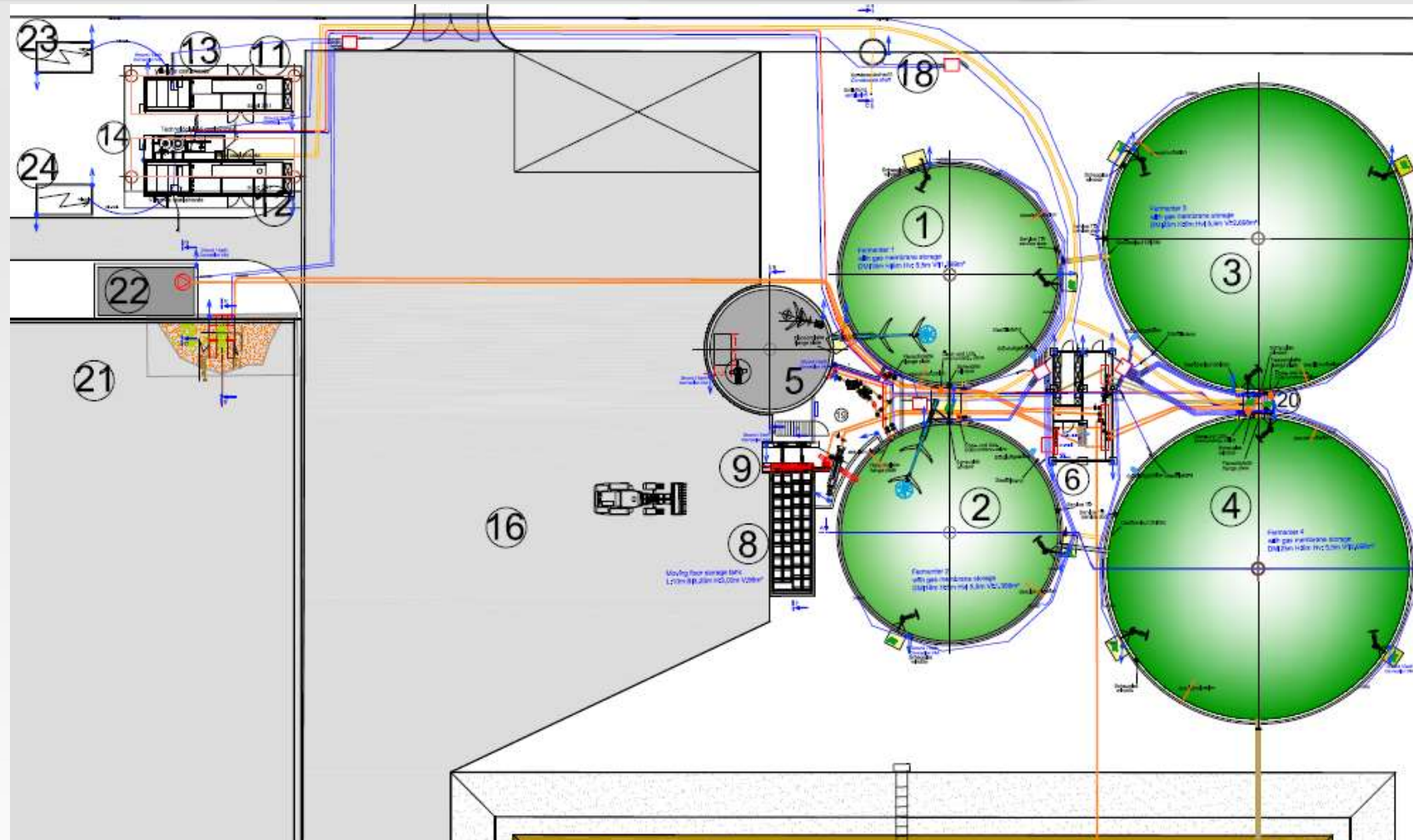
The layout of the plant I.



The layout of the plant II.



The layout of the plant III.



20. April 2017 – Closing event inside



20. April 2017 – Closing event outside



20. April 2017 – Closing event outside



Construction works in 2 minutes



Since 30th of April....

- All licences and permits available
- Fermenters filled up with substrate and run in
- Biogas production started
- CHP first start 28. August 2017.
- Grid synchronization 19 September 2017.
- First sold kWh 1st October 2017.

*Thank You for the
Cooperation!*