ALTEO: Renewable, Circular, Sustainable

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ALTEO Group
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Our vision is to create sustainable business advantage to our clients with the best available energy solutions of today, in order to become the enterprises of tomorrow. Together.
INTRODUCTION OF ALTEO
ALTEO’S ACTIVITIES AT A GLANCE

INTEGRATED ENERGY COMPANY WITH SERVICES ALONG THE WHOLE ENERGY VALUE CHAIN

ENERGY GENERATION
- Combined Heat and Power Generation
- District Heat Production
- Solar Power Generation
- Wind Power Generation
- Hydro Power Generation

ENERGY SERVICES
- Industrial Energy Supply
- Utility System O&M
- Design & Building
- Solar Projects
- Project Engineering and Management
- Biogas Power Plant O&M
- Waste Management

ENERGY TRADING
- Power Retail
- Natural Gas Retail
- Power Plant Management, Scheduling
- Ancillary Services
- Power Trading
- Energy Storage

E-MOBILITY
- E-Mobility Solutions
INTRODUCTION OF ALTEO
ALTEO’s MAIN FIGURES AT A GLANCE

- **11 MW** energy storage capacity
- **60 000 t/a** organic waste traded
- **636 GWh/a** electricity sold
- **2010** year of entering Budapest Stock Exchange
- **130 MW** own power plant capacity
- **316 MW** own heat generating capacity
- **270 employees**
- **587 GWh/a** electricity generated
- **8210 TJ/a** heat generated
- **33 Bn HUF** turnover (2020)
- **270 GWh/a** traded natural gas
- **193 MW** operated power plant capacity
INTENSE INVESTMENT IN SUSTAINABILITY...

- Acquisition of two natural gas fired power plants from E.on
  - Start of our power trading business line
- Acquisition of first 3 wind turbines
- Acquisition of SINERGY from RWE
  - Control center. Industrial references. District heat production.
- First solar power plant in our portfolio
- Building CEE region’s first and biggest (6 MW) industrial size battery power storage system
- Acquisition of a 25 MW wind portfolio, EPC of 22 MW PV
  - New business lines: waste management, e-mobility
- Acquisition of a 15 MW wind portfolio
  - New business line: production management of renewables
  - Building another 5 MW battery storage system (partially composed of used car batteries)
  - New business line: renewable production mgmt

Story of ALTEO

2008
- Establishment of ALTEO

2010
- Listing on the Budapest Stock Exchange (BÉT)

2016
- First IPO (BÉT)

2021
- BUX membership (BÉT)
INVESTMENT IN SUSTAINABILITY

ALTEO TO INVEST OVER HUF 25 bn IN SUSTAINABILITY PROJECTS SINCE 2018

40 MW wind turbines

1 MW hydro retrofit

19 MW solar plants

11 MW battery energy storage

Further HUF 35 bn to be invested in 2022-2026
### INTRODUCTION OF ALTEO

**ALTEO OPERATED POWER PLANTS**

<table>
<thead>
<tr>
<th>RENEWABLE BASED 72,4 MW&lt;sub&gt;e&lt;/sub&gt;</th>
<th>NATURAL GAS FIRED 150 MW&lt;sub&gt;e&lt;/sub&gt; / 781 MW&lt;sub&gt;th&lt;/sub&gt;</th>
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<tbody>
<tr>
<td><strong>WIND: 47,5 MW&lt;sub&gt;e&lt;/sub&gt;</strong></td>
<td><strong>DISTRICT HEAT: 42 MW&lt;sub&gt;e&lt;/sub&gt; / 125 MW&lt;sub&gt;th&lt;/sub&gt;</strong></td>
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<tr>
<td>Bőny: 25,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Budapest (Zugló) heating plant: 18,2 MW&lt;sub&gt;e&lt;/sub&gt; / 16,5 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Bábolna: 15,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Kazincbarcika heating plant: 9,6 MW&lt;sub&gt;e&lt;/sub&gt; / 58,2 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Ács: 2,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Tiszaújváros heating plant: 9,4 MW&lt;sub&gt;e&lt;/sub&gt; / 45,8 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Pápakovácsi: 2,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Ózd heating plant: 4,8 MW&lt;sub&gt;e&lt;/sub&gt; / 4,9 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Jánossomorja: 1,8 MW&lt;sub&gt;e&lt;/sub&gt;</td>
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<td>Törökszentmiklós: 1,5 MW&lt;sub&gt;e&lt;/sub&gt;</td>
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<td><strong>SOLAR: 19,2 MW&lt;sub&gt;e&lt;/sub&gt;</strong></td>
<td><strong>INDUSTRIAL: 107 MW&lt;sub&gt;e&lt;/sub&gt; / 655 MW&lt;sub&gt;th&lt;/sub&gt;</strong></td>
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<td>Nagykőrös: 7,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Tiszaújváros (TVK Power Plant): 36 MW&lt;sub&gt;e&lt;/sub&gt; / 297 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Balatonberény: 6,2 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Kazincbarcika (BC Power Plant): 47 MW&lt;sub&gt;e&lt;/sub&gt; / 206 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Monor: 4,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Kazincbarcika (BC Therm): - MW&lt;sub&gt;e&lt;/sub&gt; / 90 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Domaszkék: 2,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Sopron Power Plant: 6 MW&lt;sub&gt;e&lt;/sub&gt; / 38 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td><strong>BIO: 3,1 MW&lt;sub&gt;e&lt;/sub&gt;</strong></td>
<td>Győr Power Plant: 18 MW&lt;sub&gt;e&lt;/sub&gt; / 24 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Nagykőrös (biogas): 2,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
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<td>Debrecen Civis1 (landfill): 0,6 MW&lt;sub&gt;e&lt;/sub&gt;</td>
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<td>Debrecen Civis2 (landfill): 0,5 MW&lt;sub&gt;e&lt;/sub&gt;</td>
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<td><strong>HYDRO: 1,9 MW&lt;sub&gt;e&lt;/sub&gt;</strong></td>
<td><strong>COMMERCIAL: 1 MW&lt;sub&gt;e&lt;/sub&gt; / 1,3 MW&lt;sub&gt;th&lt;/sub&gt;</strong></td>
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<td>Felsődobsza: 0,9 MW&lt;sub&gt;e&lt;/sub&gt;</td>
<td>Agria Park 1 MW&lt;sub&gt;e&lt;/sub&gt; / 1,3 MW&lt;sub&gt;th&lt;/sub&gt;</td>
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<td>Gibárt: 1,0 MW&lt;sub&gt;e&lt;/sub&gt;</td>
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ALTEO's ACTIVITIES: SUSTAINABLE IN MANY ASPECTS

- Installation and O&M of solar power plants
- Renewable power generation
- Production management and scheduling of renewable power plants
- Waste-to-energy projects
- Complexity waste management services
- Flexibility services with CHP plants
- Energy storage systems

*Wind, solar, hydro, biogas, deponia gas power plants
ALTEO’s INVESTMENT STRATEGY 2021-26

Investment in sustainability is core to us

Target median payback period

E-mobility – organic

Waste management: acquisition plans

Corporate developments beyond renewables

Development of ARTEMIS VPP capacities (power plants, energy storage)

Renewables under PPA/other schemes, e.g. METÁR

FUNDAMENTAL INVESTMENT PRINCIPLES:

- Sustainability is a key aspect.
- The Virtual Power Plant and renewable PPA developments are a priority.
- Between 2022 and 2026, depending on investment opportunities, the amount of growth-supporting investments could exceed HUF 35 billion.
- Optimizing loan/bond opportunities could ensure that the targeted investment magnitude be financed in addition to own funds.

Legend:
- Energy trade
- E-mobility
- Waste management
- Non-renewables industrial PPA
- Virtual Power Plant
- Renewables developments PPA

Investment amount - HUF billion

Payback period (years)
OBLIGATIONS, CHALLENGES

"Clear energy for all Europeans!" /COM, 2016/
THE BUSINESS MODEL OF BIOGAS PRODUCTION

1. Vegetable and animal origin by-products, wastes and expired warehouse food are delivered to a biogas plan.

2. We process and mix the material and keep it warm in a closed process. Goal: gas production.

3. The gas (biogas) is combusted in gas engines that produce heat and electricity.

4. We market the power produced by the biogas plant, we earn money from which the plant is managed. The 2 MW biogas plant in Nagykőrös can secure the energy needs of 4500 households.

5. Residues of the process will also be managed (homogenized) and delivered away by ALTEO. This is a valuable natural fertilizer for the agriculture that helps to avoid the usage of chemical manure.

Bioagas is a source of renewable energy that unites environmental protection with energy generation.

We use renewable energy sources, decrease CO2 and CH4 emissions, manage a lot of waste, while we are generating energy and fertilizers.
VALUE CREATION FROM ORGANIC WASTE
The business model of biogas production

THE PROCESS OF CREATING VALUE FROM WASTE

YOU MANAGE THE WASTE OF INDUSTRIAL / COMMERCIAL SECTORS…

GET HOLD OF VALUABLE ORGANIC MATERIAL

PRODUCE AND SELL RENEWABLE GAS AND / OR ELECTRICITY

PRODUCE GREEN FERTILIZERS

YOU CAN REUSE YOUR PRODUCED MATERIAL IN YOUR BIOGAS PLANT
CLIENTS EXPECT COMPLEX SOLUTIONS FROM US

- ELECTRICITY SUPPLY FROM THE GRID (TRADING)
- INSTALLMENT AND O&M OF EV CHARGER INFRASTRUCTURE
- INSTALLMENT OF SOLAR SYSTEMS
- INSTALLMENT AND O&M OF BATTERY ENERGY STORAGE SYSTEMS
- TAYLOR-MADE E-MOBILITY CHARGING SOLUTION, OPTIMIZED ENERGY MANAGEMENT

CLIENT's PREMISES

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E-MOBILITY = DECENTRALIZATION

E-car (EV) charging is „hand in hand” with energy generation, storage and energy management.

Energy storage
It will be worth to store unconsumed energy and unused energy capacity locally and use it for EV charging.

Energy generation
EV fuel can be generated and stored on-site where EV’s spend most of the time parking (homes, offices, companies).

Energy management
EV charging can be adjusted to the buildings’ actual energy needs. Time to say goodbye to energy demand peaks.

EV charging
Cars park on average 20-22 hours a day. This amount of time is ideal for charging at different locations.
ALTEO's SUSTAINABLE OPERATIONS – VISUALIZED

- Wind turbines
- Solar power plant
- Biogas plant
- Hydro power plant
- Public EV charger
- Private EV charger
- Battery electricity storage facility (from outside...)
- EV charging app
- ...and inside
THANK YOU

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