

RECOVERY
OF UKRAINE 🇺🇦

Eco-industrial park "Boiarka"

Local development pilot project



WASTE ECO
MANAGEMENT

“ Environmental damage from conflict [the war] brings devastating consequences for natural resources, critical ecosystems and people’s health, livelihoods and security. **A green recovery is about remedying that damage and setting Ukraine on a new path of environmental and social sustainability.** ”

An official website of the European Union

https://ec.europa.eu/environment/stories/greening-ukrainian-recovery/index_en.html

United Nations Industrial Development Organization (UNIDO)

Eco-industrial Parks (EIPs) are key drivers for Inclusive and Sustainable Industrial Development.

EIP benefits:

- EIPs are competitive and provide decent job opportunities. Environmental footprint is lower per unit produced as they promote efficiency gains, providing better access to finance and technical support. Common services create better working conditions and enable community cohesion.
- Go well beyond the conventional business case benefits. Strategic in nature because they lead to reduced exposure to resource and licensing risks. EIPs build a better reputation with key stakeholders, value chains and communities.
- EIP concepts bring benefits to companies, industrial park management and policymakers by supporting both local and national environmental and resource use goals as well as economic development of the countries.

The creation of eco-industrial parks is a **key element of Ukraine's recovery**, given the need to:

- **Rebuild Ukraine's destroyed infrastructure** (Russia's full-scale invasion caused extensive destruction to Ukrainian housing, industry, energy and social infrastructure, nature, environment and economy. According to a joint report by the World Bank, the Ukrainian government and the European Commission, as of June 1, 2022, approximately 349 billion US dollars were needed for reconstruction. This figure undoubtedly grows as the war progresses.)
- **Introduce modern waste management systems and the recycling industry**
- **Modernize national industry**
- **Restore the environment**
- **Implement the principles of a circular economy**
- **Provide economic, environmental and social benefits, increase resource efficiency and reduce emissions of pollutants and carbon dioxide.**

Project implementation -

- is carried out within the framework of the National Program "Energy Independence and Green Deal" of the Recovery Plan of Ukraine;
- complies with the vision of the European Commission on the green recovery of Ukraine.

Ukraine Recovery Plan
<https://recovery.gov.ua>

National Program
Energy Independence and Green Deal

National Project
Developing biofuels (bioethanol, biodiesel, biomethane, biomass) production from agroproduce, residues and waste

Pilot Project at the Local Level
Eco-Industrial Park «Boiarka»

Legal framework for the creation of eco-industrial parks in Ukraine:

- The Law of Ukraine "On Industrial Parks" defines the legal and organizational principles for the creation and functioning of industrial parks in Ukraine.
- A draft law has been developed to introduce the concept of an “eco-industrial park”. Its adoption by the Verkhovna Rada of Ukraine is expected in the nearest future.

Boiarka territorial community

- Located in Kyiv region (15 km from Kyiv)
- Number of settlements: 11
- Community type: urban
- Area of the territorial community: 207.8 km²
- Community center: Boiarka city
- Community population: 53,620



EIP «Boiarka». Aims & initiators

Primary aim:

establish biofuel production from agricultural products, residues and waste.

Goals:

- ensure the economic development of the Boiarka community,
- introduce modern drainage and waste management systems,
- activate investment activities, create new jobs, and develop modern production infrastructure.

Initiators:

- Boiarka City Council
- «Waste Eco Management» LLC

The current stage:

- Preparation of the concept of the EIP "Boiarka".
- Negotiations with potential partners.

EIP "Boiarka" Concept

Core element - **industrial symbiosis**, which involves the presence of several interconnected clusters in the EIP:

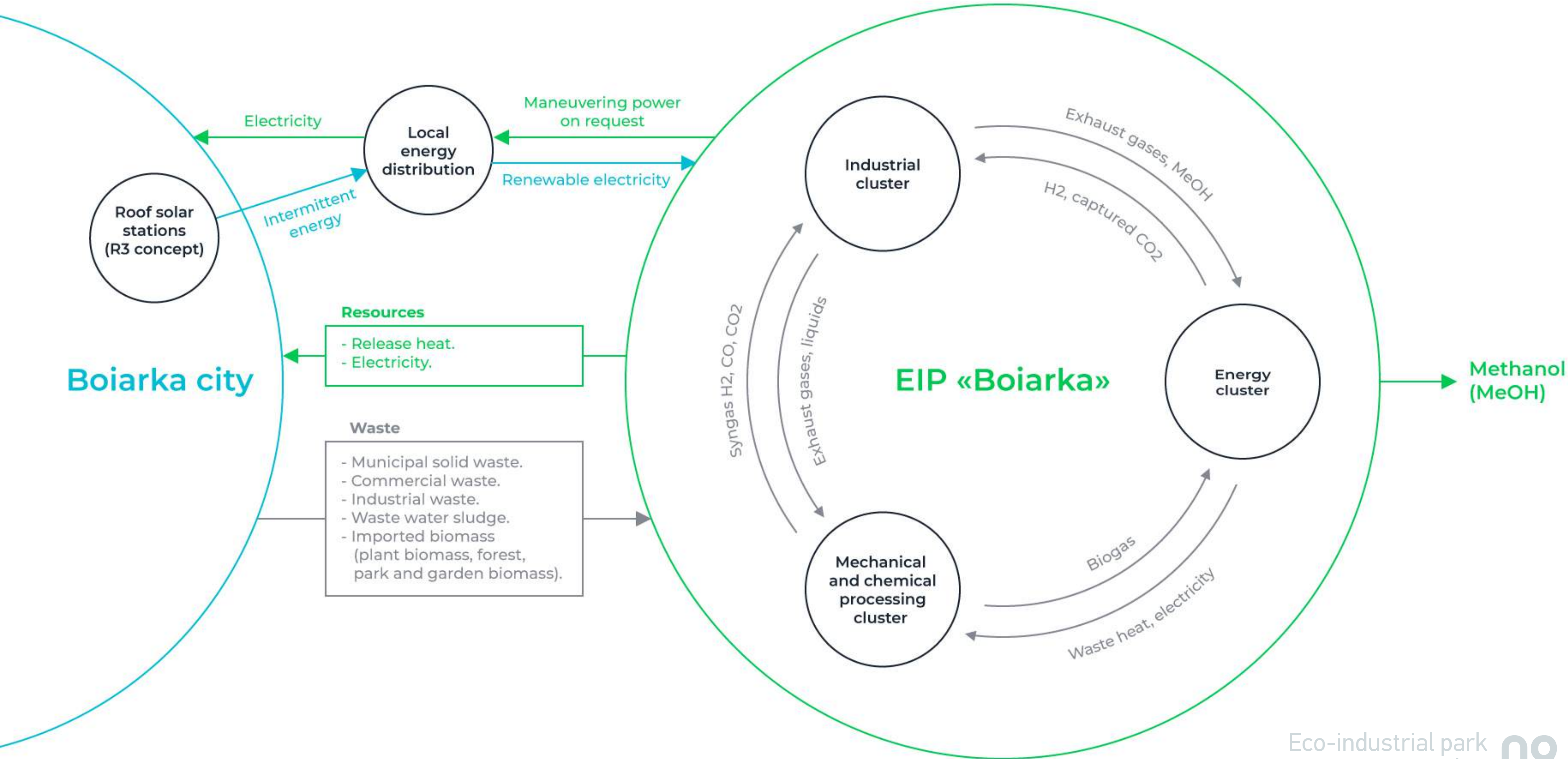
- mechanical and chemical processing cluster (waste mechanical processing plant and gasification plant for syngas production);
- industrial cluster (methanol production plant and chemical industry enterprises);
- energy cluster (power plant and electrolysis plant).



The main product of the EIP "Boiarka" -

at the first stages of the operation of the EIP, it is expected to produce 80,000 tons of BIOMETHANOL per year.

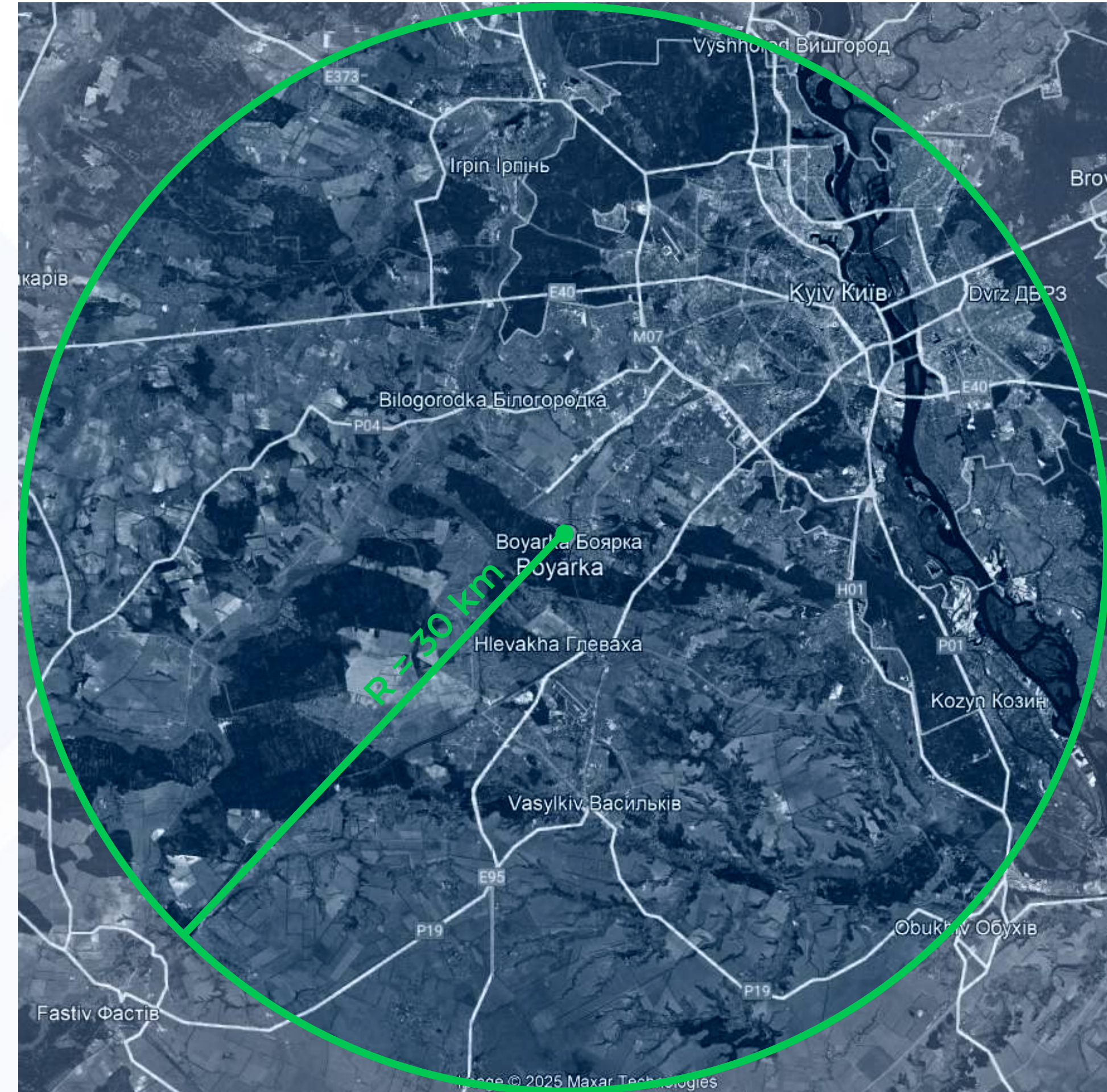
EIP "Boiarka" Concept



Advantages of EIP "Boiarka"

1. Location:

- The necessary land plot is **already available** in the industrial zone, which consists of two parts:
 - 4 hectares. Boiarka community.
 - 8 hectares. «Waste Eco Management» LLC.
- Proximity to sewage treatment facility. **The site borders the Boiarka water utility**, which provides sufficient wastewater treatment for the functioning of the EIP.
- **Sufficient waste supply:**
 - Municipal solid waste - 50,000 tons per year.
 - Plant waste - 50,000 tons per year.
 - Wood waste - 20,000 tons per.



Advantages of EIP "Boiarka"

2. Common utility and engineering infrastructure:

- Own electricity distribution systems (self-generation mechanism)
- Unified water supply and sewage
- Aggregated waste and heat supply
- Common systems:
 - Emission control and monitoring systems
 - Waste management
 - Fire safety
 - Video surveillance and security.

3. Full synergy with the city regarding the provision:

- Electricity
- Water
- Heat

The dual nature of EIP initiation (municipal-private partnership) implies a close interaction of the Boiarka city with the eco-industrial park.

We invite you to discuss future cooperation!



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