

# ENERGY

## 5 PROJECTS FROM THE REGION'S COMMUNITIES AND BUSINESSES

### **Construction of 5 MW solar power station**

(TOB "MEGAVATY", Mezhyrichska TC, Pavlohrad district)

01

### **Construction of 10 MW solar power station**

(Vakulivska TC, KryvyiRih district)

02

### **Construction of 110 MW solar power station**

(LLC "METINVEST HOLDING", the city of KryvyiRih, Kamianske, Zaporizhzhia)

03

### **Construction of 25.4 MW solar power station energy storage systems**

(PJSC "KRYVYI RIH CEMENT", the city of KryvyiRih)

04

### **ENERGY RECYCLING OF ORGANIC RAW MATERIALS**

Concern "Sunrise", the city of Vilnohirsk, Dnipropetrovsk region

05

# CONSTRUCTION OF 5 MW SOLAR POWER STATION



The project involves the construction of solar power station with the use of solar panels on the land plot with an area of 10 hectares. Planned capacity: 5 MW. Solar-radiation level: 1.375 kW/m<sup>2</sup>.

INITIATOR:

MEGAVATY, Ltd.



DURATION:

6 months



TOTAL PROJECT COST:

\$5.6 mln



## PROJECT GOALS:

- ▶ electricity generation from renewable sources;
- ▶ generation of environmentally safe electricity;
- ▶ reducing greenhouse gas emissions from electricity generation;
- ▶ creation of 8 new jobs.



## ECONOMIC INDICATORS OF THE PROJECT

Net present value (NPV)

**\$ 4 mln**

Profitability index (PI)

**1.69**

Internal rate of return (IRR)

**8%**

Discounted Payback Period (DPP)

**5 years**

EBITDA (5-th year)

**\$ 21.2 mln**

Revenue (5-th year)

**\$ 1.5 mln**



## TECHNICAL PARAMETERS OF THE PROJECT

### Land plot characteristics:

area:

**10 ha** (5 x 2 ha);

industry land,

cadastral number is available.

### Project location:

Mezhyricka TC, Dnipropetrovsk region.

### Engineering infrastructure:

- distance to the electric power substation «Mineralna» with capacity 150/35/10 is 1,5 km;
- electric power substation owner – «Ukrzaliznytsia» PJSC (Pridniprovska Railways).

### Mechanisms for cooperation:

- proprietary funds – 30%;
- potential investor – 70%.

### According to the project:

- land plot in private ownership;
- the solar power plant construction draft was prepared;
- a feasibility study has been developed;
- an agreement with «Ukrzaliznytsia» PJSC (Pridniprovska Railways) on connection to the electric network has been concluded;
- declaration for the construction beginning was received.

### Transport infrastructure:

distance to:

- European highway E50 – 1.5 km;
- paved road of Karabynivka village – 5 m;
- Mineralna railway station – 1.2 km;
- Pavlograd city – 50 km;
- Dnipro city – 50 km.



## ADDITIONAL INFORMATION

### Investment incentives / regulatory environment:

Ukraine provides state support for electricity generation from renewable energy sources, specifically solar power. For commercial projects, the terms for electricity sales are governed by applicable legislation and resolutions of the National Energy and Utilities Regulatory Commission (NEURC).

The implementation of new solar power plants is subject to compliance with established procedures for construction, grid connection and the formalization of electricity sales. The final terms for grid connection and electricity sales are finalized upon project commissioning stage.

### Alignment with the sustainable development goals:



Address: 2, O. Paul Ave, office 538,  
the city of Dnipro, Ukraine, 49004  
[www.dia.dp.gov.ua](http://www.dia.dp.gov.ua)

Contact person: **Yuliia Sharai**

Tel.: **+38 (056) 742 86 34**

E-mail: [sharaidia@gmail.com](mailto:sharaidia@gmail.com)

## CONSTRUCTION OF 10 MW SOLAR POWER STATION

The community offers a prepared plot of land with an area of 21 hectares for the implementation of an investment project - the construction of a solar power station use of solar panels. Solar-radiation level: 1.375 kW/m<sup>2</sup>.



INITIATOR:

Vakulivska TC



DURATION:

6 months



TOTAL PROJECT COST:

\$ 12,7 mln



### PROJECT GOALS:

- ▶ electricity generation from renewable sources;
- ▶ generation of environmentally safe electricity;
- ▶ reducing greenhouse gas emissions from electricity generation;
- ▶ creation of 8-10 new jobs.



### ECONOMIC INDICATORS OF THE PROJECT

Net present value (NPV)

**\$ 8.2 mln**

Profitability index (PI)

**1.69**

Internal rate of return (IRR)

**8 %**

Payback period (PP)

**6 years**

EBITDA

**\$ 21.2 mln**

Common benefit per year

**\$ 2.9 mln**

## TECHNICAL PARAMETERS OF THE PROJECT



### Land plot characteristics:

area:

**21 ha;**

land designated for energy sector use;  
cadastral number is available;

### Project location:

Vakulivska TC, Dnipropetrovsk region.

### Transport infrastructure:

- there is an access dirt and slag road;
- 1 km – territorial highway T0419 (Pyatikhatky–Zelenodolsk);
- 10.9 km – railway station "Pavlopilla";
- 65 km – international airport "Kryvyi Rih";
- the nearest cities: Apostolovo (31 km); Kryvyi Rih (35 km); Nikopol (60 km).

### According to the project:

- a land management project was prepared and a cadastral number was assigned;
- the purpose of the land plot on the land of the energy industry was changed;
- a detailed plan of the territory was approved;

### Mechanisms for cooperation:

- land lease and business registration on the territory of the community;
- desired participation in community social projects.

### Engineering infrastructure:

- in the zone of 50-100 m - there is electricity, water and gas supply;
- 100 m - the nearest power transmission line for connection, with a capacity of 10-35 kW.
- 100 m - transformer substation.



## ADDITIONAL INFORMATION

### Investment incentives / regulatory environment:

Ukraine provides state support for electricity generation from renewable energy sources, specifically solar power. For commercial projects, the terms for electricity sales are governed by applicable legislation and resolutions of the National Energy and Utilities Regulatory Commission (NEURC).

The implementation of new solar power plants is subject to compliance with established procedures for construction, grid connection and the formalization of electricity sales. The final terms for grid connection and electricity sales are finalized upon project commissioning stage.

### Alignment with the sustainable development goals:



**DIA** DNIPROPETROVSK  
INVESTMENT AGENCY

Address: 2, O. Paul Ave, office 538,  
the city of Dnipro, Ukraine, 49004  
[www.dia.dp.gov.ua](http://www.dia.dp.gov.ua)

Contact person: **Yuliia Sharai**

Tel.: **+38 (056) 742 86 34**

E-mail: [sharaidia@gmail.com](mailto:sharaidia@gmail.com)

## CONSTRUCTION OF SOLAR POWER PLANTS WITH CAPACITY OF 110 MW



The project provides for the construction of solar power plants with a total capacity of 110 MW on free plots of land belonging to Metinvest Group enterprises in Dnipropetrovsk and Zaporizhzhia regions.



INITIATOR:

LLC "METINVEST HOLDING"

[llc "metinvest holding"](#)



DURATION:

1-2 years (in stages)



TOTAL PROJECT COST:

\$ 60 mln



### PROJECT GOALS:

- ▶ creation of internal renewable energy generation capacities to partially cover the needs of Metinvest Group and to increase the energy independence of its enterprises;
- ▶ reducing CO<sub>2</sub> emissions and supporting the corporate strategy for decarbonizing production;
- ▶ optimization of the use of free industrial plots;
- ▶ improving the stability of energy supply for enterprises in regions with damaged energy infrastructure;
- ▶ creation of 30 new jobs.



### ECONOMIC INDICATORS OF THE PROJECT

Net present value (NPV)

**on request**

EBITDA (annually)

**on request**

Internal rate of return (IRR)

**on request**

Income (annually)

**on request**

Payback period (PP)

**on request**



## TECHNICAL PARAMETERS OF THE PROJECT

- **Total installed capacity:** 110 MW.
- **Generation type:** solar photovoltaic (PV).
- **Annual electricity production:** ≈ 150 GWh.
- **Production sites:** several locations on free industrial plots belonging to Metinvest enterprises in Dnipropetrovsk and Zaporizhzhia regions.
- **Total area for station placement:** ≈ 189 ha.
- **Environmental efficiency:** reduction of CO<sub>2</sub> emissions, production of 150 GWh of clean energy.
- **Readiness stage:** ready for implementation, land plots with technical infrastructure are available, preliminary feasibility studies have been completed.

### Project location:

The city of Kryvyi Rih;  
The city of Kamianske;  
The city of Zaporizhzhia.

### Initiator resources:

- operating enterprise located in an industrial zone with its own railroad tracks and storage facilities;
- own tractor production, where both assembly of Chinese tractors and production of own tractors and additional equipment for them are carried out;
- buildings and constructions to accommodate production, with a total area of 93,000 m<sup>2</sup>;
- a project for tractor production has been developed (requires recalculation).

### Mechanisms for cooperation:

- involvement of credit resources, grant funds and direct investments;
- involvement of credit resources, grant funds and direct investments;
- other opportunities of cooperation.



## ADDITIONAL INFORMATION

**About the company LLC" METINVEST HOLDING":** the leading company of Metinvest Group, one of the largest vertically integrated mining and metallurgical holdings in the world. The group unites enterprises with a full production cycle, from iron ore mining to the production of finished metal products. It has facilities in Ukraine, Europe and the US and supplies products to more than 100 countries worldwide.

**Project status:** ready for implementation.

**Alignment with the sustainable development goals:**



- The implementation of the project is part of strategy of Metinvest to improve energy efficiency and transition to low-carbon metallurgical production. Solar power plants will provide a stable source of self-generated electricity for enterprises in Dnipropetrovsk and Zaporizhzhia regions, reducing dependence on external electricity providers and the risk of power outages.
- The project is consistent with the national goals of Ukraine for the development of renewable energy and will contribute to the integration of Ukrainian industry into European green supply chains.



Address: 2, O. Paul Ave, office 538,  
the city of Dnipro, Ukraine, 49004  
[www.dia.dp.gov.ua](http://www.dia.dp.gov.ua)

Contact person: **OIHA KOZLYTSKA**

Tel.: **+38 (056) 742 86 34**

E-mail: **[o.kozlytska@dia.dp.ua](mailto:o.kozlytska@dia.dp.ua)**

## CONSTRUCTION OF SOLAR POWER PLANTS WITH A CAPACITY OF 25.4 MW AND ENERGY STORAGE SYSTEMS



PJSC "Kryvyi Rih Cement" is implementing a comprehensive energy project aimed at increasing energy efficiency and achieving energy independence for the company. The project involves the construction of three solar power plants (SPPs) with energy storage systems at the company's key production sites:



- at the cement plant – SPP with a capacity 24 MW with a 20 MW energy storage system;
- at the Rybalsky quarry – 1.1 MW with a 1.8 MW storage system;
- at the Khust quarry – 0.3 MW.

INITIATOR:



PJSC "KRYVYI RIH CEMENT"

<https://krcement.com/>

DURATION:



1 year

TOTAL PROJECT COST:



\$ 18 mln



### PROJECT GOALS:

- ▶ ensure the energy independence of the company;
- ▶ reduce electricity expenses and decrease CO<sub>2</sub> emissions by 475 tons annually;
- ▶ optimize production processes through stable energy supply;
- ▶ contribute to the development of green energy and energy resilience in the region;
- ▶ create up to 30 new jobs.



### ECONOMIC INDICATORS OF THE PROJECT

Company's resources for project implementation: \$5.4 mln

Net present value (NPV)

**\$ 14.4 mln**

Internal rate of return (IRR)

**22%**

Payback period (PP)

**6.8 years**

EBITDA (3-rd year)

**\$ 4.8 mln**

Income

**Internal economic impact**



## TECHNICAL PARAMETERS OF THE PROJECT

- **Total installed capacity of the SPP:** 25.4 MW.
- **Energy storage system capacity:** 21.8 MW.
- **Expected annual electricity generation:** ≈ 31 GWh.
- **Reduction in external electricity consumption:** up to 40%.
- **CO<sub>2</sub> emissions reduction:** ≈ 475 tons per year.
- **Grid connection status:** technical conditions preliminarily agreed.
- **Project readiness stage:** concept developed, feasibility study prepared, and locations determined.

### Project location:

The city of Kryvyi Rih.

### Mechanisms for cooperation:

- attracting credit resources, grant funding and direct investments;
- financial partnership;
- other forms of cooperation.



## ADDITIONAL INFORMATION

**About the company PJSC “Kryvyi Rih Cement”:** is one of the leading companies in Ukraine's cement industry, providing the construction sector with high-quality products for infrastructure and industrial projects. The company consistently implements energy efficiency principles and sustainable development practices, modernizes its production facilities, and adopts environmentally safe technologies.

**Project status:** ready for implementation.

### Alignment with the sustainable development goals:



- To enhance energy independence, the company is implementing a project aimed at significantly reducing external electricity consumption, minimizing environmental impact, and increasing the company's competitiveness.
- The implementation of the project to build solar power plants with a capacity of 25.4 MW and energy storage systems will not only reduce PJSC "Kryvyi Rih Cement's" dependence on centralized electricity sources, but also support the resilience of Ukraine's energy system in crisis situations.
- The company will independently implement the construction of solar power plants and energy storage systems, which will become an integral part of the company's energy complex. This solution will ensure the stability of production processes, optimize energy consumption, and enhance the company's energy independence.



Address: 2, O. Paul Ave, office 538,  
the city of Dnipro, Ukraine, 49004  
[www.dia.dp.gov.ua](http://www.dia.dp.gov.ua)

Contact person: **Yuliia Sharai**

Tel.: **+38 (056) 742 86 34**

E-mail: [sharaidia@gmail.com](mailto:sharaidia@gmail.com)

## ENERGY RECYCLING OF ORGANIC RAW MATERIALS

The aim of the project is to establish a facility for processing organic raw materials into energy and useful by-products in accordance with the principles of the circular economy.

Energy recycling of organic raw materials addresses the following objectives:

- the creation of distributed power generation;
- a guaranteed supply of electricity and heat to local communities;
- reducing the environmental impact;
- generating useful energy from waste or byproducts of the agricultural, food, and municipal sectors.



INITIATOR:

Concern "Sunrise"



DURATION



9-14 months

TOTAL PROJECT COST:



\$6 mln



### PROJECT GOALS:

- ▶ organizing the consistent reception and processing of organic raw materials;
- ▶ production of biogas and its conversion into electrical and heat energy;
- ▶ reintroduction of processing by-products into the secondary economy;
- ▶ improving the economic efficiency of the organic waste management system;
- ▶ creation of new jobs;
- ▶ reduction of greenhouse gas emissions.



### PROJECT ECONOMIC INDICATORS

NPV over 10 years (discount rate of 14%)

**\$1.61 mln**

Payback period (PP)

**4 years**

Internal rate of return (IRR)

**15 %**

EBITDA (annually)

**\$1.46 mln**

## PROJECT TECHNICAL PARAMETERS



- **Estimated facility capacity:**
  - 20000 t/year of municipal solid waste.
- **Average biogas production:** 110 m<sup>3</sup>/year.
  - **Expected annual biogas production:**
    - ≈ 0.99 million m<sup>3</sup>/year.
- **Electricity output:** 2.8 GWh/year
- **Heat energy output:** 42.42 GWh/year.
- **Electrical efficiency of cogeneration:** 35%
- **Digestate (fertilizer):** ≈ 10,000 t/year.
- **Thermal efficiency of cogeneration:** 45%.
- **Grid connection status:** technical specifications have been pre-approved.
- **Readiness stage:** concept designed, feasibility study prepared.

### Project location:

the city of Vilnohirsk, Dnipropetrovsk region

### Mechanisms for cooperation:

- attraction of credit resources, grant funding and direct investments
- financial partnership;
- other forms of cooperation.



## ADDITIONAL INFORMATION

Biogas energy is one of the most promising areas of renewable energy development for agricultural regions. Every year, tens of millions of tons of organic waste are generated in Ukraine, a significant portion of which is currently landfilled or decomposes uncontrollably, causing environmental and economic losses. Their effective conversion into biogas not only reduces the environmental burden but also ensures stable production of energy and valuable organic fertilizers.

**Project status:** ready for implementation.

The construction of biogas facilities is especially important in the context of damage centralized energy infrastructure caused by hostilities. Distributed biogas generation can significantly increase the energy resilience of businesses and local communities by ensuring local production of electricity and heat, reducing dependence on traditional energy resources and providing the foundations for sustainable regional development.

### Alignment with the sustainable development goals:



**DIA** ДНІПРОПЕТРОВСЬКЕ  
ІНВЕСТИЦІЙНЕ АГЕНСТВО

Address: 2, O. Paul Ave, office 538,  
the city of Dnipro, Ukraine, 49004  
[www.dia.dp.gov.ua](http://www.dia.dp.gov.ua)

Contact person: **Yuliia Sharai**

Tel.: **+38 (056) 742 86 34**

E-mail: [sharaidia@gmail.com](mailto:sharaidia@gmail.com)