# CCOOPTIM/ green energy for life

ECO-OPTIMA — is the largest group of companies in Western Ukraine, incorporated in 2009, which is engaged in the development and deployment of renewable and clean energy sources.

We are the first privately owned company in Ukraine that received a renewable energy loan from the European Bank for Reconstruction and Development (EBRD) and built the first wind farm in Western Ukraine. The company, supported by credit resources from the EBRD,

the North Environmental Finance Corporation (NEFCO), the Investment Fund for Developing Countries (IFU) and Ukrainian banks, has implemented many energy projects, as detailed below, in the field of renewable energy. Along with existing facilities, we continue to develop and implement new investment projects.



# **Equipment and performance:**



# Mission

Green Energy for Life - create generating capacities using wind, solar, water, and biomass energy.

# **Core values**

### **OUR COMPANY'S VALUES:**







SPP Phase I of 3.12MW was commissioned in 2012.
SPP Phase II of 5.08MW was commissioned in 2015.
SPP includes 32 003 photovoltaic modules.
The solar power plant covers an area of 22.2 hectares.
Connection voltage – 10kV.

- Installed capacity 8.2MW
- Annual electricity generation 8.8 million kWh.
- Ralivka Village, Sambir District, Lviv Region



## STARI BOHOROD CHANY SOLAR POWER PLANT

Commissioned in 2013.

Includes 12 320 photovoltaic modules.

The solar power plant covers an area of 6 hectares.

Connection voltage – 10kV.

- Installed capacity 2.8MW
- Annual electricity generation 3.0 million kWh.
- Stari Bohorodchany Village, Bohorodchany District, Ivano-Frankivsk Region





The solar power plant was built on the dumps of a closed down sulphur industrial complex where the land is unsuitable for agriculture.

SPP Phase I of 36.75MW was commissioned in 2018.

SPP Phase II of 35.10MW was commissioned in 2019.

SPP includes 260 520 photovoltaic modules.

The solar power plant covers an area of 140 hectares.

- Installed capacity 71.85MW
- Annual electricity generation 82.2 million kWh.
- Ternovytsa Village, Yavoriv District, Lviv Region



### HLYNIANY SOLAR POWER PLANT

SPP Phase I of 3.44MW was commissioned in 2018.SPP Phase II of 18.26MW was commissioned in 2019.SPP includes 75 912 photovoltaic modules and 188 inverters.The solar power plant covers an area of 46.8 hectares.Connection voltage is 10kV and 35kV.

- Installed capacity 21.7MW
- Annual electricity generation 25 million kWh.
- Hlyniany, Zolochiv District, Lviv Region





### BORYSLAV SOLAR POWER PLANT

Commissioned in 2019.

Includes 30 768 photovoltaic modules and 114 inverters.

The solar power plant covers an area of 16.8 hectares.

Connection voltage – 35kV.

- Installed capacity 8.45MW
- Annual electricity generation 9.4 million kWh.
- Town of Boryslav, Drohobych District, Lviv Region



### RADEKHIV SOLAR POWER PLANT

Commissioned in 2019.

Includes 27 242 photovoltaic modules and 69 inverters.

The solar power plant covers an area of 14.4 hectares.

Connection voltage – 10kV.

- Installed capacity 8.46MW
- Annual electricity generation -9.6 million kWh.
- Town of Radekhiv, Lviv Region





During 2022, the Group of Companies commissioned 5 new solar power plants with 1MW unit capacity each.

# «RADEKHIV-2» «PEREMYSHLIAN «DERNIV-1»



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# «CHERVONOHRAD-1»

### «PEREMYSHLIANY-1» «CHEMERYNTSI-1»

- Photovoltaic modules at all solar power plants have an adjustable tilt angle depending on the time of year.
- Annual energy output is 5.8 million kWh.



Commissioned in 2014.

Thanks to this project, four coal-fired boiler houses were converted to the local type of fuel – wood chips – in the town of Rava-Ruska.The boiler house is equipped with KRIGER KVM(a)-0.82 boilers and KALVIS-400 boilers.

Boiler houses have automated fuel supply systems.

- Installed capacity 2.16MW
- Town of Rava-Ruska, Lviv Region



BIO ENERGY AAA

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### TRUSKAVETSKA THERMAL POWER PLANT

In 2016, the boiler house running on biofuel and having a total capacity of 1.45MW was commissioned in the town of Truskavets.

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The boiler house is equipped with KALVIS-950M1 and KALVIS-500M1 boilers with a 'moving floor' automated fuel supply system.

- Installed capacity 1.45MW
- Town of Truskavets, Lviv Region





Wind Farm Phase I of 13.2MW was commissioned in 2014.

Wind Farm Phase II of 20.7MW was commissioned in 2017.

The facility includes ten Vestas V126 wind turbines (Denmark) having a unit capacity of 3.3MW and 3.45MW. Tower height is 117m, and blade length is 63m.

- Installed capacity 33.9MW
- Annual electricity generation 77.4 million kWh.
- Strilbichi Village, Staryi Sambir District, Lviv Region



WIND ENERGY

### SKOLIVSKA WIND FARM

The construction of the wind farm launched in 2022 in a mountainous area at an altitude of 700m above sea level. The facility will be equipped with Nordex N149 turbines with a unit capacity of 5.5MW.

Tower height is 104.7m, and blade length is 74.5m.

Construction will be completed in June 2023.

- Target capacity 54.6MW
- Annual electricity generation 130.8 million kWh.
- Oriv Village, Skole District, Lviv Region



Plans for 2023 include building two new solar power plants with 1MW unit capacity each in Rava-Ruska and Korchyn in the Lviv Region.

- Total capacity 2MW
- Annual electricity generation 2.3 million kWh.
- Town of Rava-Ruska and Korchyn Village, Lviv Region







### SOKALSKA HYDROPOWER PLANT

Reconstruction of the hydraulic structure on the Western Bug River will involve the installation of a 1MW small hydropower plant with Kaplan turbines (Czech Republic). Construction will start in June 2023.

Construction will be completed in December 2023.



### • Target capacity – 1MW

- Annual electricity generation 8 million kWh.
- Ulvivok Village, Chervonohrad District, Lviv Region



### SKHIDNYTSKA HYDROPOWER PLANT

The plan is to install this diversion hydropower plant on the Stryi River. Construction period is 2024.

- Target capacity 2MW
- Annual electricity generation 14 million kWh.
- Rybnyk Village, Drohobych District, Lviv Region





Plans for 2024–2025 include building a wind farm in the Chervonohrad District having a projected energy output of 116 million kWh.

The area permanently allocated for the wind farm covers 12.3 hectares.

- Target capacity 55MW
- Outside the town of Chervonohrad, Chervonohrad District, Lviv Region



# «Nordik-Bud»

LLC is a member of the Eco-Optima Group of Companies and performs engineering, construction and installation works in the energy sector and other industries



# Engineering Firm «Teploelektroproekt»

EF «Teploelektroproekt» that joined Eco-Optima Group of Companies in 2022 to develop and implement new advanced technologies in the field of nuclear energy.

EF «Teploelektroproekt» specialises in the integrated design of new and reconstruction of existing thermal power facilities of all types and capacity, including individual systems and structures of nuclear power facilities that are elements of normal operation not affecting the safety of the nuclear power plant.

EF «Teploelektroproekt» performs design of thermal and nuclear power facilities in

- Ukraine
- India
- Bulgaria
- Moldova



- Turkey
- Bangladesh
- Finland

# Partners



Vestas	(DK)
Nordex	(DE)
Fronius	(AT)
Huawei	(CN)
Trina Solar	(CN)
Risen Energy	(CN)
Mavel	(CZ)
SOLAR <sub>sk</sub>	(UA)
ZWAE	(PL)
ZPUE	(PL)
ABB	(CH,SE)

Zakhidnadraservis <sub>(UA)</sub>		
MND Group	(UA)	
Ukrenergo	(UA)	
Ukrainian Railways (Ukrzaliznytsia)	(UA)	
Lvivoblenergo	(UA)	
Prykarpattia oblenergo	(UA)	
Pivdenkabel	(UA)	
Odeskabel	(UA)	
ZaporizhEnergo Komplekt (ZENK)	(UA)	
Zaporizhzhia Transformer Association (ZTA)	(UA)	
Meganom Ukraine	(114)	
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