



# SOLAR PLANTS



# Energy efficiency in the Roaming Networks portfolio

**Roaming Networks Serbia** has included energy efficiency projects in its rich portfolio. The Law on Energy will enable the use of own production, up to the amount of approved consumption power, created by the use of own capacities. According to the same law, solar power plants will be able to be built on investors' facilities.

We have gathered a team of experienced professionals in this field, who cover all the most important steps, from the development of the conceptual design, the main design solution, obtaining building permits and connection permits, through the purchase of equipment, construction of the solar power plant to its commissioning.

We especially emphasize the quality of equipment and staff training. The first is reflected in the manufacturer's guarantees, and the second through many years of experience in electrical installations, including solar power plants. Our vendors – UlicaSolar, manufacturer of solar panels, and Huawei, manufacturer of inverters offer long-term guarantees:

12-year limited product warranty

25-year limited performance warranty

5-year inverters warranty with the possibility of extending until the end of the power plant's life (25 years).

# Construction of a solar plant – phases and steps

01 Cost-effectiveness study - preparation of a feasibility study (IDR + ROI + method of payment) - **free of charge**

02 Pilot project - involves the introduction of a small-scale solar power plant in a certain available space of the company, ideally on a canopy for parking. The pilot aims to show whether the assumptions from the study are correct and whether the projected savings are generated

03 Phase expansions - If the pilot phase is successful, expansion to all appropriate office buildings and production halls will follow

04 The specific steps of the investment process are as follows: submission of requests for location conditions by the investor (opinion on the design and connection of electricity distributors), obtaining a building permit or work permit, signing a contract, and construction of a solar power plant and commissioning of a solar power plant

# Project Development

01

## **Solar PV plant up to 50 kW, on roof**

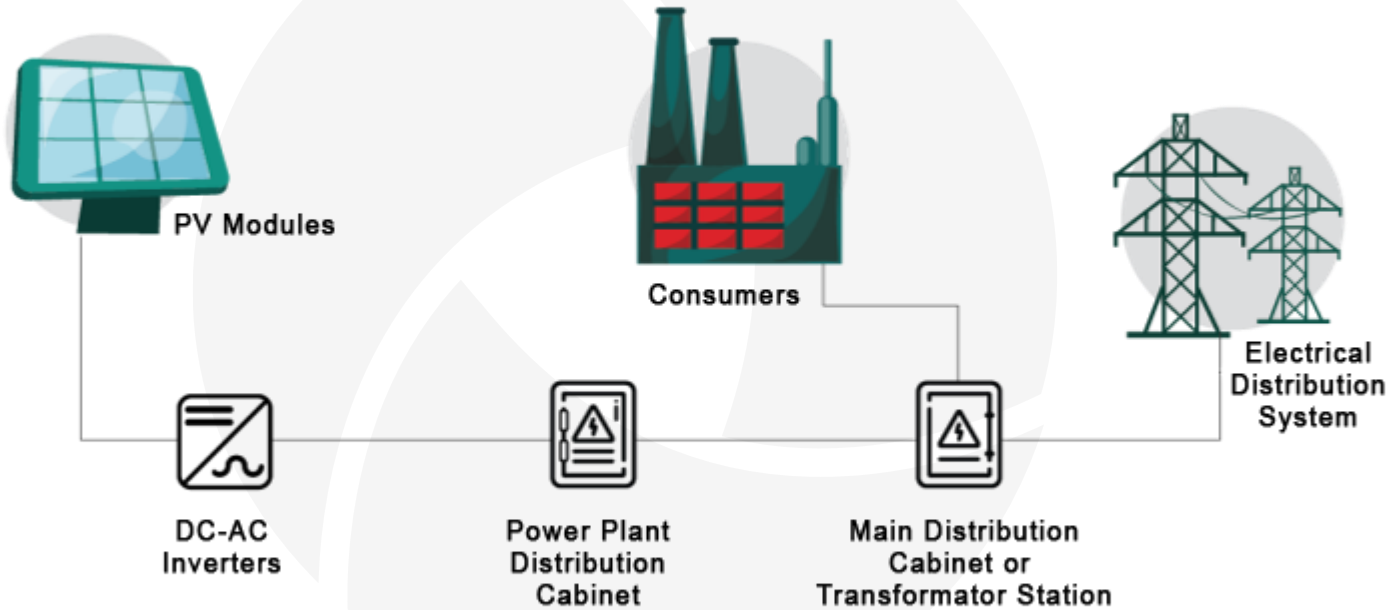
- The conceptual project according to the Law of planning and construction
- Obtaining approval for the execution of works

02

## **Solar PV plant from 50 kW, on the roof and the ground**

- Conceptual design for obtaining location conditions and conditions from Electrical distribution
- Project for building permit
- Technical control of Project for building permit
- Obtaining the building permit

# Solar system principal structure



## Solar plants – possible positioning



Roofs of buildings



Ground field

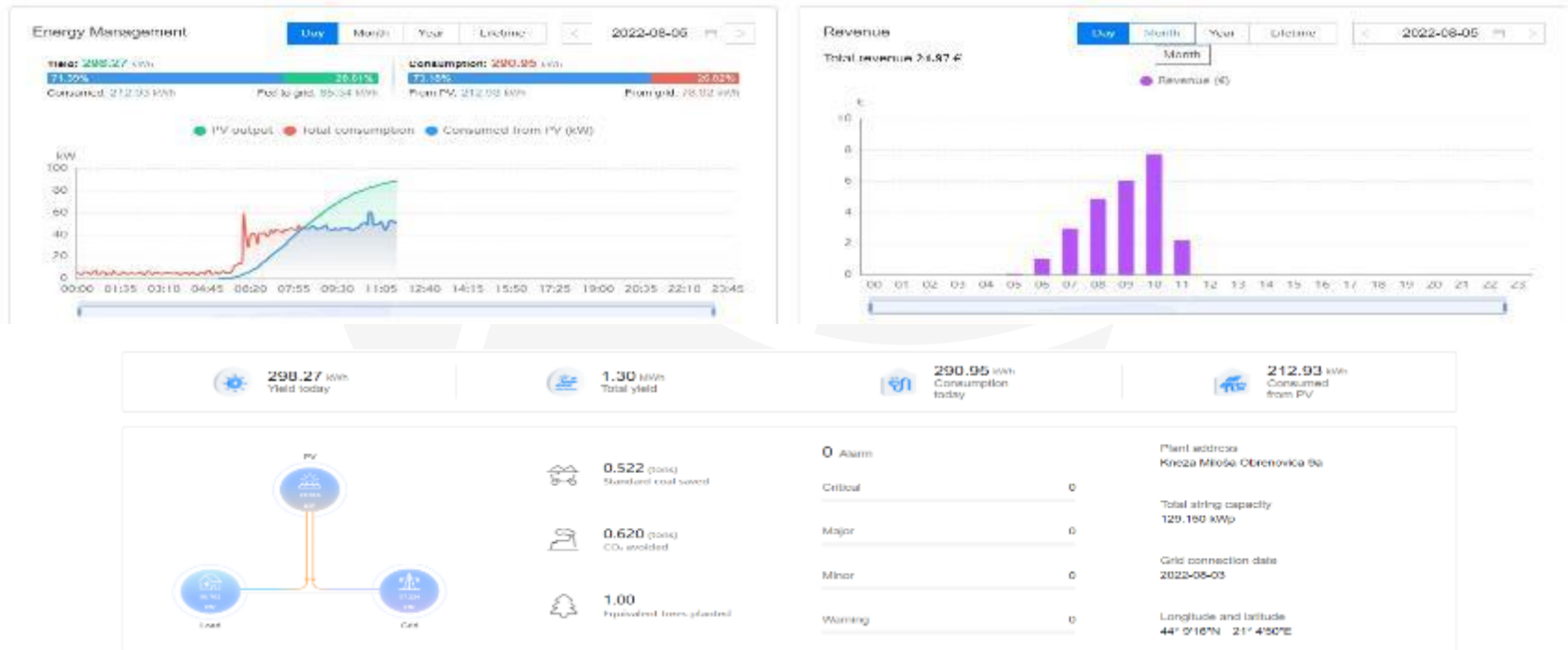
## Parking space canopy





# Methods of photovoltaic power plants monitoring system

The Roaming Networks company provides a monitoring system for the operation of the photovoltaic power plants, with the support of the Fusion solar application.







# CASE STUDIES

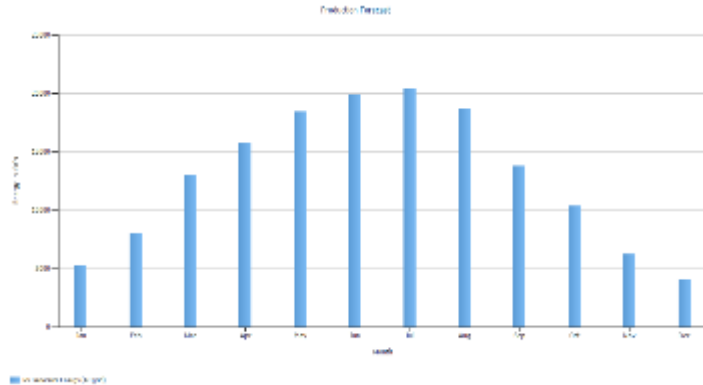


# Case Study #1

Total installed capacity: 129,15 kWp  
Commissioning date: July 2022

**Return of investment: 6 years**

Annually production, electricity by month

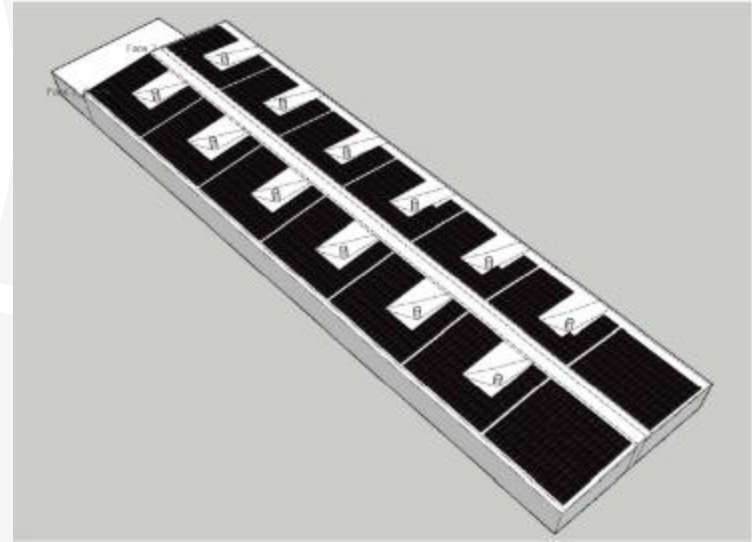
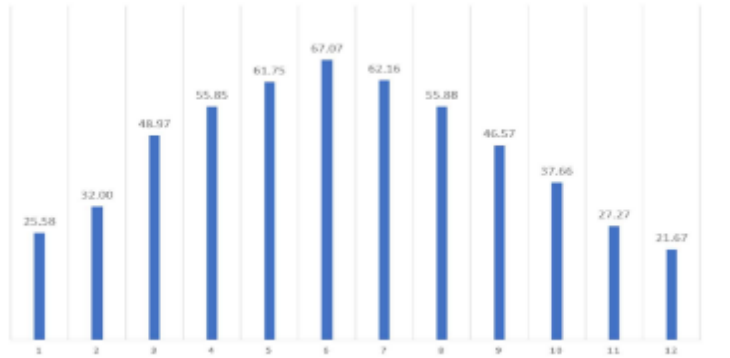


## Case Study #2

Total installed capacity: 500 kWp  
Commissioning date: September 2022

**Return of investment: 5.7 years**

Annually production, electricity by month

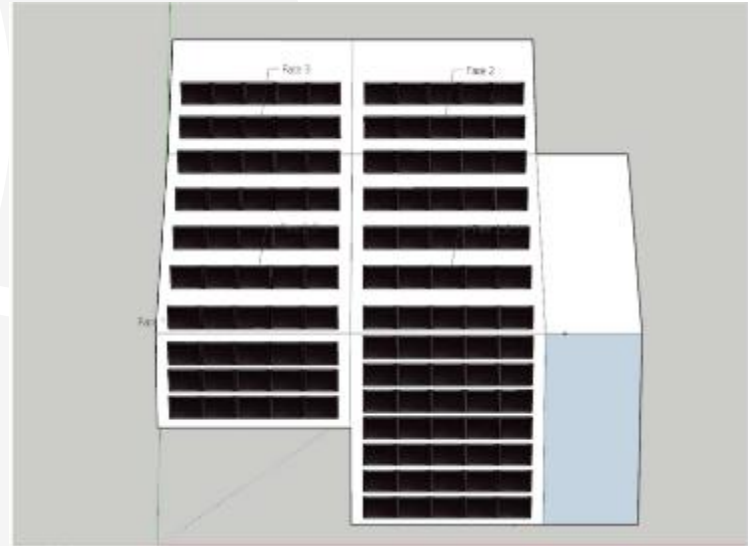
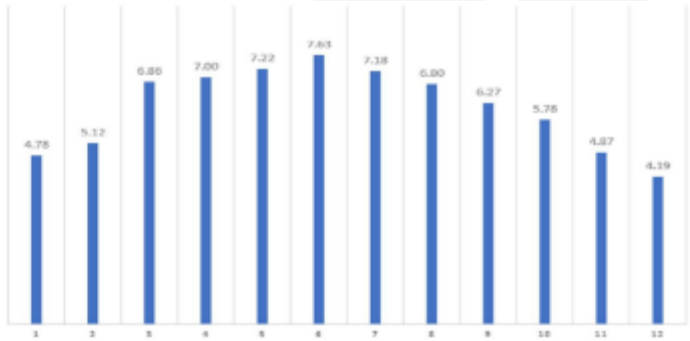


## Case Study #3

Total installed capacity: 49.2 kWp  
Commissioning date: September 2022

**Return of investment: 5.5 years**

Annually production, electricity by month





**REFERENCE**



## Reference Serbia

- Photovoltaic power plant in Batočina. Power of PV plant: 129.15 kWp
- Photovoltaic power plant in Belgrade. Power of PV plant: 500 kWp
- Photovoltaic power plant in Valjevo. Power of PV plant: 49.2kWp





## Reference Serbia

- Photovoltaic power plant in Miloševac. Power of PV plant: 182.4 kWp
- Photovoltaic power plant in Kovin. Power of PV plant: 91.2 kWp
- Photovoltaic power plant in Krepoljin. Power of PV plant: 91.2 kWp





## Reference Bosnia and Herzegovina

- Built a photovoltaic power plant (PV system) for Mtel in Trebinje with an installed capacity of 44.52 kWp,
- Built a photovoltaic power plant (PV system) for Mtel in Bijeljina with an installed capacity of 50 kWp,
- Built a photovoltaic power plant (PV system) for Agriculture Faculty in Banja Luka with an installed capacity of 1,8 kWp,
- Built an off-grid photovoltaic power plant (PV system) for the Faculty of Agronomy and Food Technology in Mostar with an installed capacity of 3 kWp,
- Built 2 photovoltaic power plants (PV system) for “Džemal Bijedić “ University in Mostar with an installed capacity of 1,8 kWp each (total capacity of 3,6 kWp)
- Built a photovoltaic power plant (PV system) for a private individual in Banja Luka with an installed –capacity of 10 kWp
- Built a photovoltaic power plant (PV system) for a private individual in Banja Luka with an installed - capacity of 13,65 kWp
- Contracted to build a photovoltaic power plant (PV system) for a private individual with an installed - capacity of 15 kW



## Reference Austria – RNC Solutions

Pilot project for A1 - Installation of 12 iPV 400Vp Huawei solar panels, positioned on the roof, are located on one of the largest containers of the A1 operator in Austria.

The company RNC Solutions completed TSSR, conceptual solution, production of cellular panel construction, and installation of the solution on the A1 site. Installation of Huawei power supply and new Huawei lithium batteries. The A1 operator is also enabled to remotely monitor the functionality of solar panels, rectifiers, and lithium batteries.





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