



Building the structure for a sustainable future

# Case study: **Key steps** in building a PV power plant

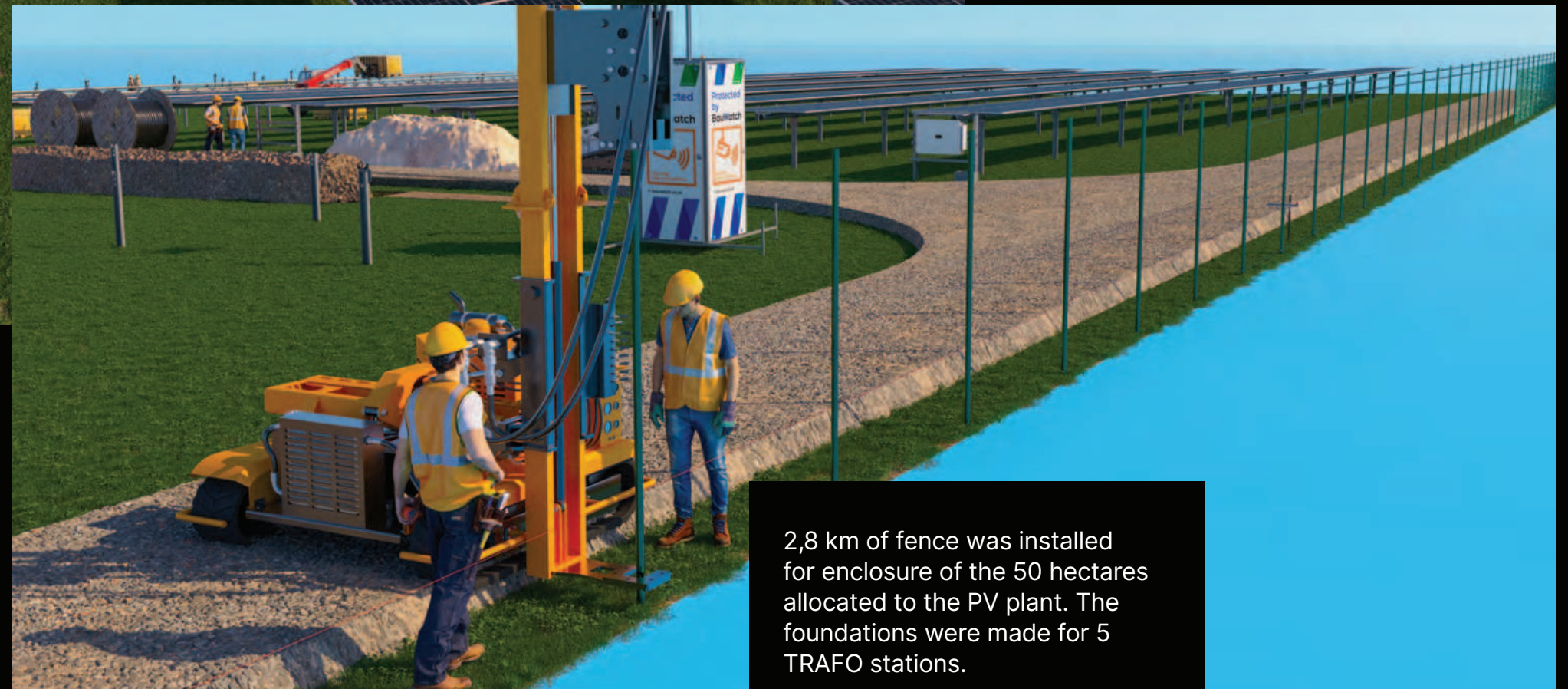




## Stage I. Roads, Fences & Foundations

Building the Roads - the first stage in the construction of a photovoltaic power plant. And the wide way leading from unused field to renewable energy generation capacities, installed to cover electricity consumption for hundred of households in the country.

All the roads inside and outside the PV plant were built in record time: 7,5 km in 30 days.

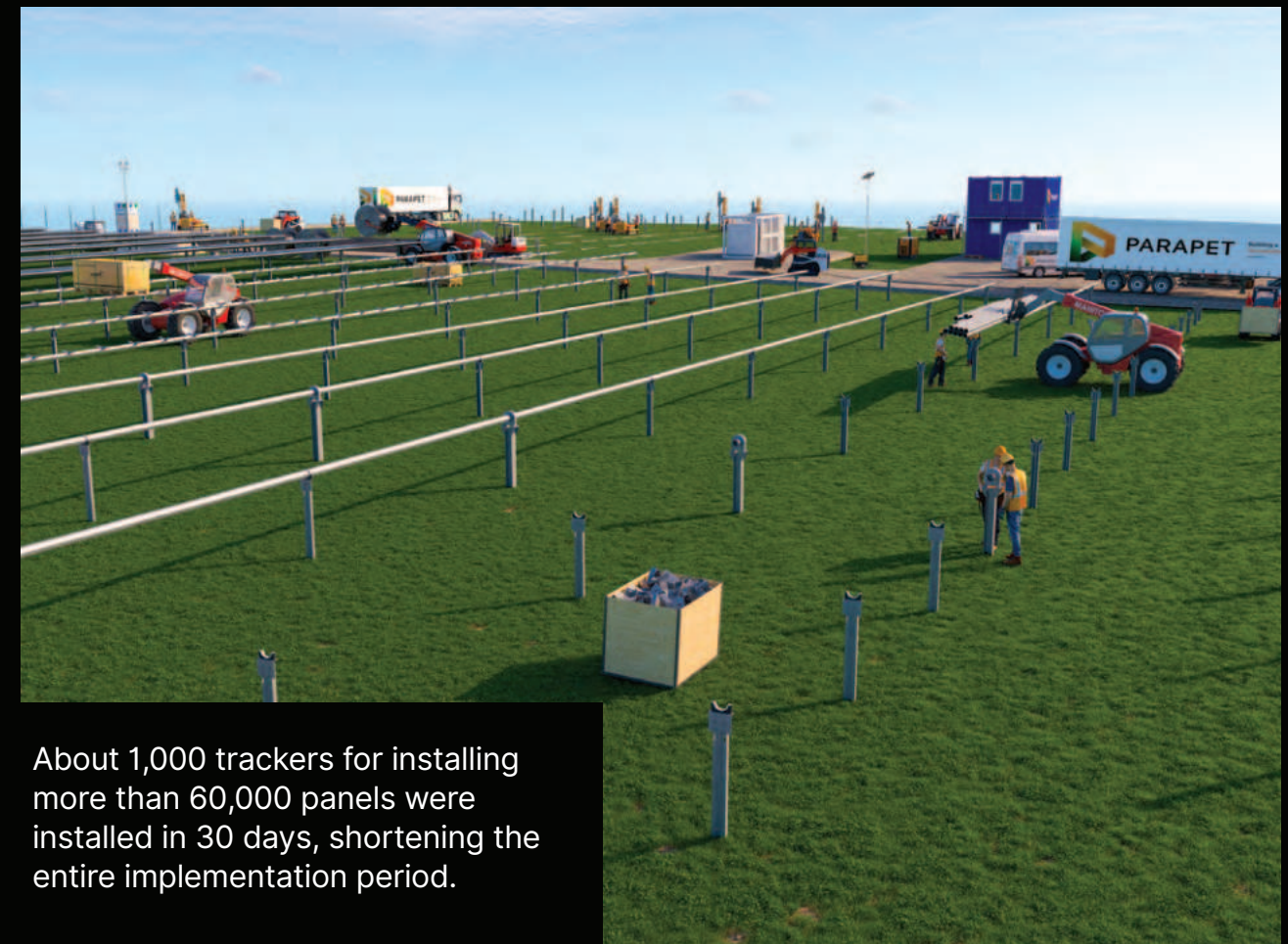


2,8 km of fence was installed for enclosure of the 50 hectares allocated to the PV plant. The foundations were made for 5 TRAF0 stations.



## Stage II. Ramming & Mechanical Works

The machines were used to ram more than 12,700 posts over a two-week period. Due to the digitalization of the fleet - steps such as tracing, picketing, horizontal alignment of the posts, were done digitally - the time for ramming was shortened by half, as well as the number of technicians involved in the process.



About 1,000 trackers for installing more than 60,000 panels were installed in 30 days, shortening the entire implementation period.

### Stage III. Electrical Works & CCTV & SCADA

Parapet engineers and technicians installed over 500,000 meters of string cable (D.C.), 18,200 meters of alternating current cable (A.C.J.T. – low voltage LV) and 38,550 meters of medium voltage A.C.M.V. cable (medium voltage).

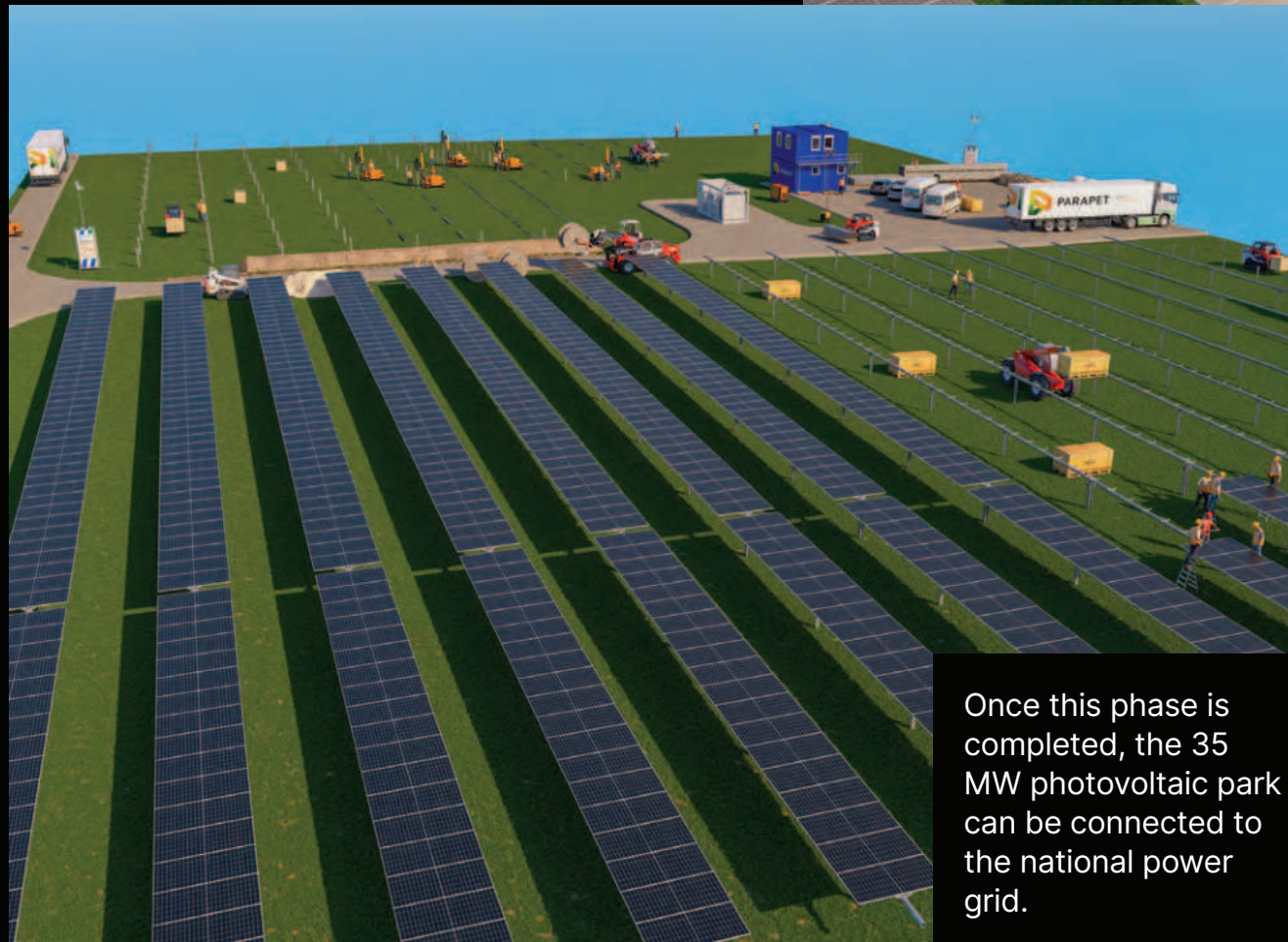
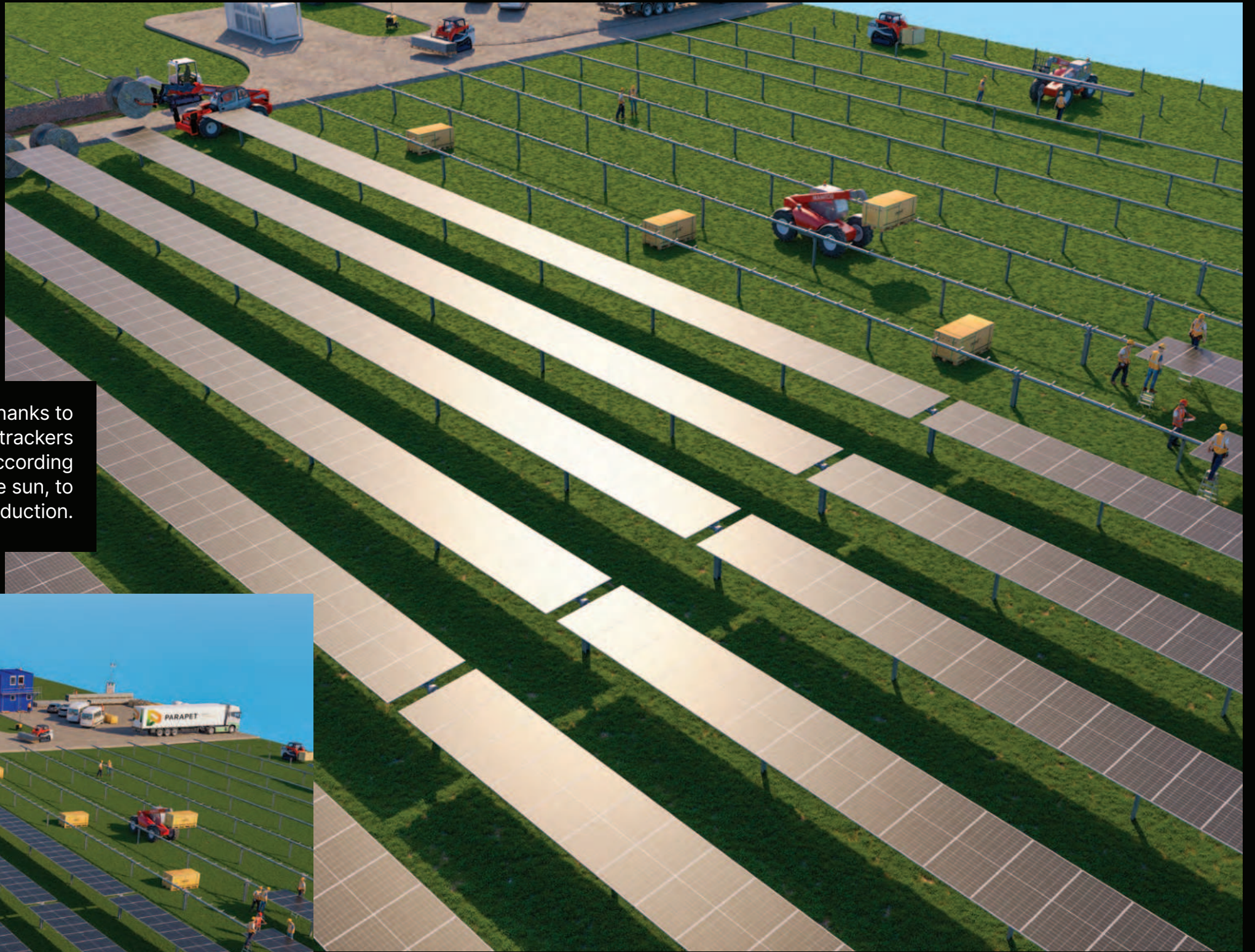


85 invertors of 350 kW were installed as well as 5 substations of 6.4 MW.

## Stage IV. Testing and Commissioning

This is the last stage in the construction of the PV power plant. Parapet team covers the parameterization of inverters, transformers, weather stations, automation of trackers, calibration of alarm systems.

You can see how, thanks to automation systems, trackers and PV panels move according to the position of the sun, to maximize electricity production.



Once this phase is completed, the 35 MW photovoltaic park can be connected to the national power grid.





# PARAPET

## **Cluj-Napoca**

Tiberiu Popoviciu St,  
2th Floor, Team Building  
RO-400647

office@parapet.ro  
+40 371 372 277

## **Bucharest**

Tudor Arghezi 21,  
2th Floor  
RO-030167

office@parapet.ro  
+40 736 370 113

## **Nürnberg**

Außere Sulzbacher  
Str. 155a  
90491

office@parapet.ro  
+49 152 25288972