



PROGRAMME OF CONSTRUCTION OF PHOTOVOLTAIC SOLAR POWER STATIONS IN NIS J.S.C.

Naftna industrija Srbije j.s.c.
Energy Block
Project Development Center
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NIS j.s.c. strategic pursuits

- NIS j.s.c 2030 Planning:
 - Building capacities for the production of electricity from RES and reaching the share of RES of 50% in the total consumption of electricity;
 - Reduction of negative impact on the environment and reduction of carbon intensity by 30% compared to 2018.
- Several projects have been implemented in the last decade:
 - CCPP Pančevo with the largest electric power of 196 MW on natural gas,
 - 12 small power plants in oil and gas fields with a total power of 14 MW
 - solar photovoltaic power plants (PVPS) with a total power of 2.2 MWp at 45 gas stations (PS) and three at facilities owned by NIS j.s.c
- Projects being carried out in 2024-2025 period
 - The construction of 4 solar PVPS with a total power of 7.8 MWp for 2024 is underway.
 - Approved construction of 4 solar power plants with a total power of 10 MWp for 2025.
 - Approved construction of 30 solar PVPS at PS with a total power of 1 MWp for 2025.
- The base scenario of the company's development until 2030 envisages the construction of a PVPS with a capacity of 20 MWp
- The optional scenario provides the possibility of building an additional 30 MWp of solar PVPS capacity

Activities within construction of solar photovoltaic power stations

Item #	Project title	Power Station Capacity [kWp]	Position	Status	Feasibility Study	Selection of Contractors	Construction	In works
1	PVPS at 8 petrol stations (PS)	292	roof	Buyer-produc.	2021	2021	2022	10.2022
2	PVPS at 7 PS	243	roof	Buyer-produc.		2022	2023	4.2023
3	PVPS at 30 PS (2023/24)	1.000	roof	Buyer-produc.		2023	Pending 2023-2024	29 out of 30
4	PVPS at JAZAK Water Factory	370 250	roof-floor	Buyer-produc.	2022	2023	2023-2024	6.2024
5	PVPS installed on the corporate centre in Novi Sad, A. Teodorovica Street	100	roof	Buyer-produc.	2022	2023	in progress 2023-2024	6.2024
6	PVPS at Petroleum Products Storage in Novi Sad	585	roof	Buyer-produc.	2022	2023	Pending 2023-2024	7.2024
7	Floor-type PVPS at Petroleum Products Storage in NS	6,590	floor	For the market	2020	2023	Pending 2023-2024	plan 12.2024
8	Roof-mounted PVPS at the Pančevo Refinery	600	roof	Buyer-produc.	2022	2024	Pending 2024	plan 11.2024
9	4 floor-type PVPS at company owned facilities (Elemir, Jermenovci, Smederevo)	10,000	roof-floor	Buyer-produc. / market	2023	Plan 2024-2025	2025	plan 8. -9.2025
10	PVPS at 30 PS (2024/25)	1,000	roof	Buyer-produc.		2024	Pending 2024-2025	plan 7.-10.2025
Oct. 2024	In works	2,840	TOTAL 21 MWp		INVESTMENT 14 MLN EUR			
	In construction	8,190						
	Planned for construction	1,000						

Concept of PVPS at 45 PSs

- PV panels mounted on canopies above the fuel dispenser
- Direct current cables are led from the canopies of the PV panels through the lantern to the main building where the inverter is installed and connected to the main distribution cabinet.



Solar PVPS at 8 PS - pilot project

2022

- | | | | |
|----------|----------------------------------|----------|-------------------------|
| 1 | PS STARI BANOVCИ HIGHWAY | 5 | PS PRELJINA 2 |
| 2 | PS KRAGUJEVAC 7 ELEKTROŠUMADIJA | 6 | PS GORNJI MILANOVAC |
| 3 | PS KRNJESEVCI HIGHWAY | 7 | PS DAYTON, NEW BELGRADE |
| 4 | PS VELIKA PLANA - HIGHWAY, RIGHT | 8 | PS BLOCK 45 |

The total capacity of the panels is 290 kWp

All photovoltaic power stations at 8 petrol stations are in permanent operation and in the status of buyer-producer



Solar PVPS at 7 PSs

2023

- | | | | |
|----------|-----------------------|----------|--------------------|
| 1 | PS BAGRDAN (JAGODINA) | 5 | PS KRUŠEVAC 5 |
| 2 | PS NAIS | 6 | PS DUNAV (PANČEVO) |
| 3 | PS FONTANA | 7 | PS Novi Sad 1 |
| 4 | PS VRNJAČKA BANJA | | |



The total capacity of the panels is **243 kWp**

All photovoltaic power stations are in operation and have the buyer-producer status

Solar PVPS at 30 PS (2023/24)

1	ADAŠEVCI	11 ZMAJ 1	21 ĐAČKO OSTRVO, NIŠ
2	NOVI SAD 16	12 MALI POŽAREVAC	22 NOVI PAZAR
3	VRŠAC 1	13 ZLATIBOR	23 TOŠIN BUNAR
4	ZRENJANIN 1 FILLING STATION	14 SAVA MOST, ŠABAC	24 KRAGUJEVAC 3
5	PLINARA	15 VRANJE GRAD	25 ŽARKOVO 1
6	SUBOTICA 1	16 LEDENA STENA NIŠ	26 UŽICE GRAD 1
7	BRŠAC 2	17 ČAČAK	27 BOR 1
8	STARA PAZOVA 3	18 SOKOLIĆI	28 ZRENJANIN 2 FILLING STATION
9	SUBOTICA 4	19 OBRENOVAC GRAD	29 SUBOTICA 2
10	KIKINDA 4	20 ZAJEČAR	30 KOVIN

- Power stations at 30 PS
- All of them are in buyer-producer status

- The total capacity of the panels is **1,000 kWp**
- 29 power stations launched by June 2024.
- The 1 remaining is in the launching



Solar PVPS at JAZAK Water Factory



The capacity of the roof panels is **370 kWp**

Total capacity of the floor panels is **250 kWp**

Connection to the distribution network - June 2024.

The power plant received a usage permit - August 2024.



Projects under way:

ROOF-MOUNTED PVPS, NOVI SAD CORPORATE CENTRE,
ARSE TEODOROVIĆA STREET

Panel Capacity: 100 kWp

The PVPS has been in operation since July 2024 for own needs following its completion

ROOF-MOUNTED PVPS, NOVI SAD PETROLEUM PRODUCTS

Panel Capacity: 585 kWp

The PVPS has been in operation since July 2024 for own needs following its completion

FLOOR-TYPE PVPS, NOVI SAD PETROLEUM PRODUCTS

Panel Capacity: 6.590 kWp

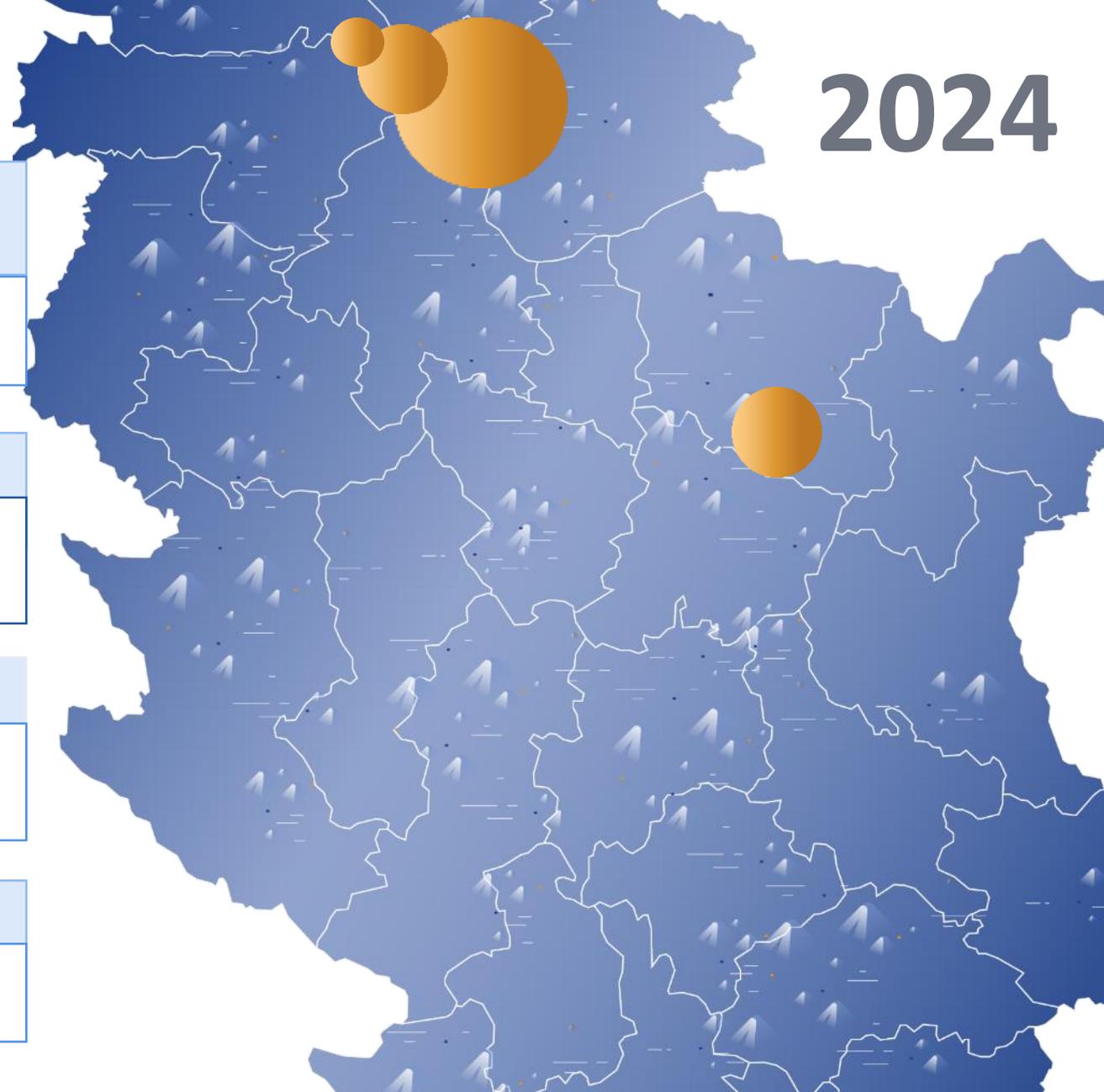
Trial operation is planned for December 2024.

ROOF-MOUNTED PVPS AT THE PANČEVO REFINERY

Panel Capacity: 600 kWp

Trial operation is planned for September 2024.

2024



Solar PVPS at 30 PS (2024/25)

1	ARANĐELOVAC 2	11	LAZAREVAC-GRAD	21	PYMA 1
2	BAČKA TOPOLA-VAŠARIŠTE	12	LESKOVAC-GRAD 5	22	SEVOJNO 2
3	CARINA	13	MEDIJANA 2	23	COMBOP 2
4	ČARLI ČAPLINA	14	NOVA VAROŠ	24	SREMSKA MITROVICA 1
5	ČUKARICA	15	Novi Sad 4	25	ŠID
6	DŽONA KENEDIJA	16	Novi Sad 7	26	TOPOLA
7	KLADOVO	17	NOVO MIRIJEVO	27	TRG OSLOBOĐENJA
8	KRAGUJEVAC 5	18	Palić	28	UB
9	KRAGUJEVAC 6	19	PETROVARADIN	29	ZRENJANIN CENTAR
10	KRUŠEVAC 1	20	POŽAREVAC 1	30	Žarkovo 2

- **Power stations at 30 PS**
- **All of them will be in buyer-producer status**

- **The total capacity of the panels is 1,000 kWp**
- **Trial operation is planned for a period between July and October 2025.**



Projects approved for completion in 2025

ROOF-MOUNTED PVPS IN ELEMIR'S CENTRAL WAREHOUSE

Panel Capacity: 1.200 kWp
Trial operation is planned for August 2025.

FLOOR-TYPE PVPS IN ELEMIR'S CENTRAL WAREHOUSE

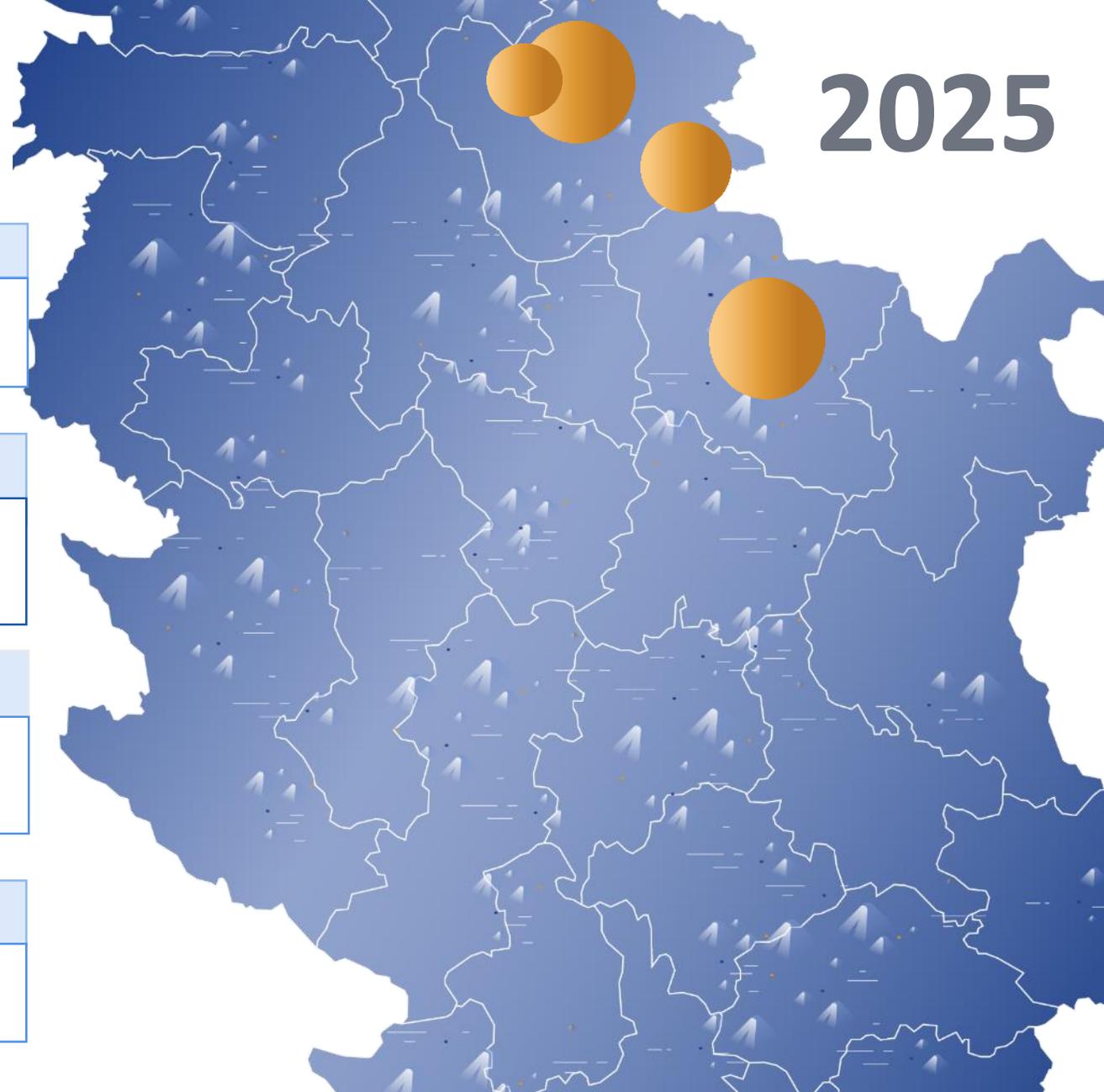
Panel Capacity: 3.300 kWp
Trial operation is planned for September 2025.

FLOOR-TYPE PVPS IN JERMENOVCI

Panel Capacity: 2.500 kWp
Trial operation is planned for August 2025.

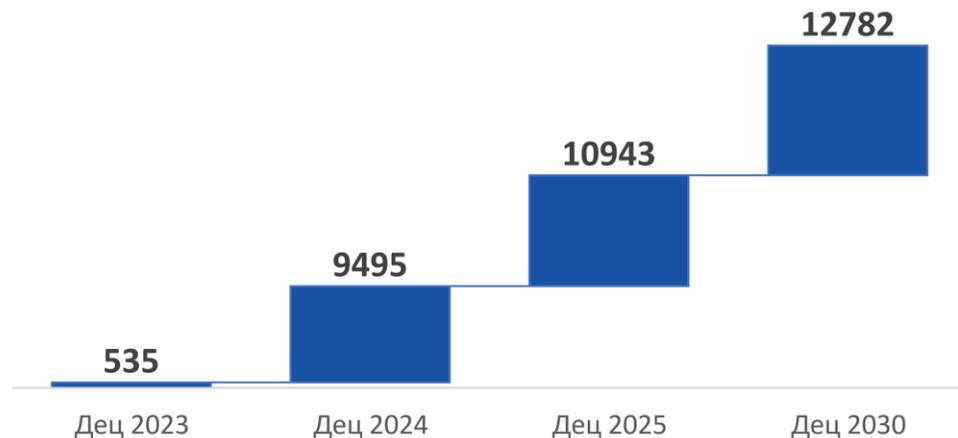
FLOOR-TYPE PVPS IN SMEDEREVO

Panel Capacity: 2.900 kWp
Trial operation is planned for August 2025.

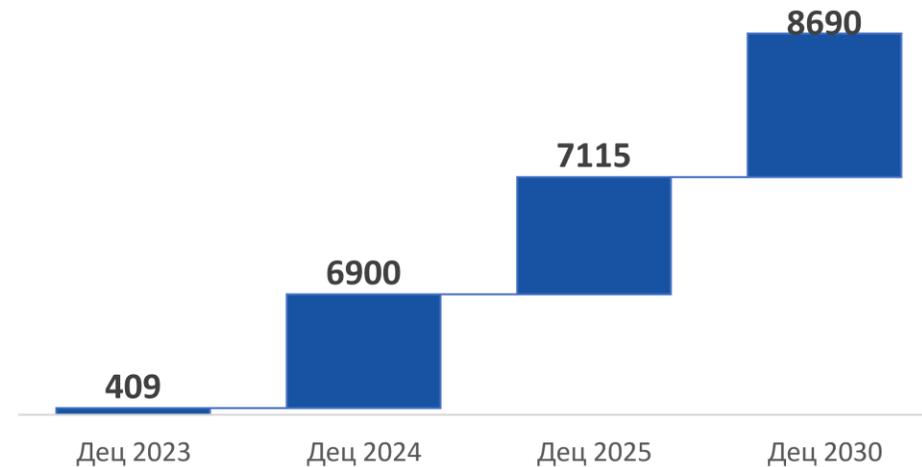


Anticipated outcome of the solar PVPS construction programme

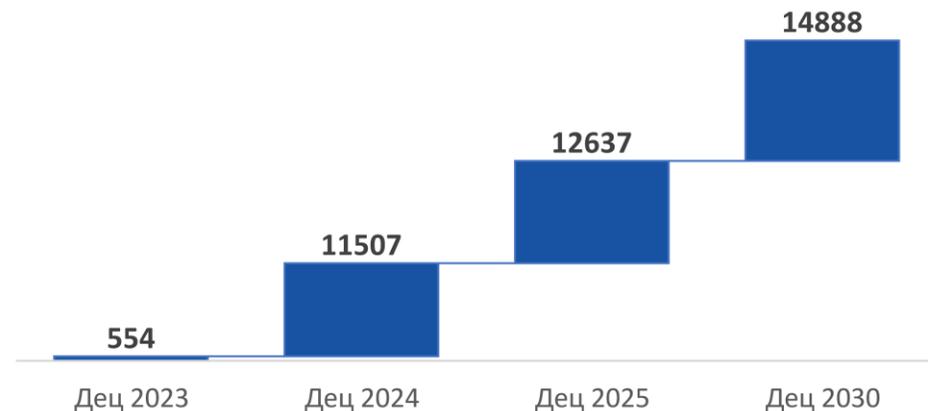
Increase of power stations' installed capacity (kWp)



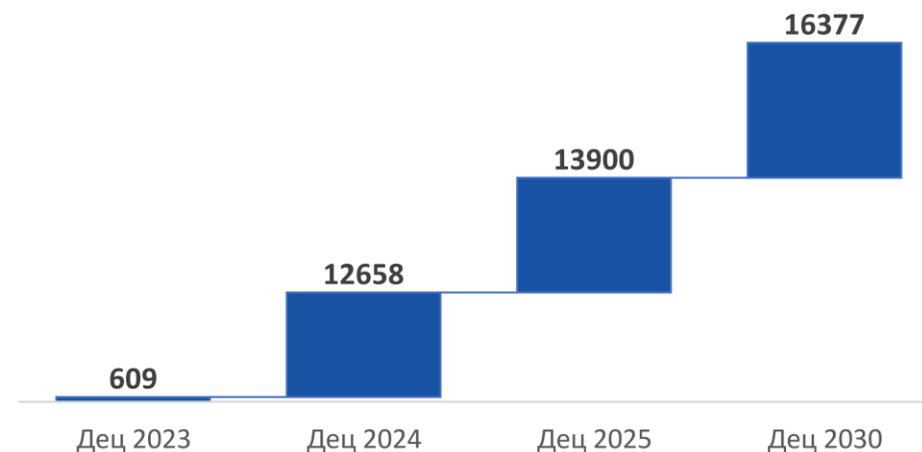
Investment in solar power stations (thous. Eur)



Increase of annual average electric power generation (MWh/g)



Annual average CO2 emission reduction (tCO2/g)





**THANK YOU
FOR ATTENTION!**