

### **SolarMax Energy Systems**

# Large-scale solar power generation system in North Macedonia





#### **Overview**

The GEN-I Group has put a second large solar power plant into operation in North Macedonia, this time near Kavadarci. With a total power of 12 MW, the plant will generate up to 15,500 MWh of carbon-free energy a year, thereby helping to decarbonise the energy system. How many solar plants are there in North Macedonia?

This is a huge number for North Macedonia as the biggest solar plant at the moment is only 17MW, with the second biggest being 10MW. According to the RKE 2022 Annual Report, 267 new renewable energy power plants are currently in the works (with solar plants having the biggest part - 254 plants).

How will a new solar plant help Macedonia?

Andi Aranitasi, EBRD Head of North Macedonia, said: "The new solar plant will help the country, which faces severe air pollution from coal, to reduce its reliance on ageing coal-fired infrastructure. It will also generate cheap electricity in times of very high market prices.

Who built the first solar plant in North Macedonia?

The 10MW solar plant, built on the site of the spent Oslomej lignite coal mine, was constructed by the public company JSC Elektrani na Severna Makedonija (ESM). This is the company's first solar plant in North Macedonia, developed with a view to diversifying energy sources and supporting decarbonisation.

What is the current state of solar energy in North Macedonia?

This article explores the current state of solar energy in North Macedonia, the opportunities for growth, and the challenges that must be addressed to maximize its potential. By the end of 2022, the country had reached a photovoltaic capacity of approximately 144 MW, with projections indicating rapid growth in the coming years.

What are the benefits of expanding solar energy capacity in North Macedonia?



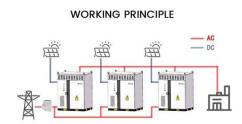
One of the most compelling benefits of expanding solar energy capacity in North Macedonia is its potential to enhance energy independence. In 2021, approximately 33.2% of North Macedonia's electricity consumption was covered by imports.

How much solar power does Macedonia have in 2022?

By the end of 2022, the country had reached a photovoltaic capacity of approximately 144 MW, with projections indicating rapid growth in the coming years. In 2023 alone, North Macedonia saw an impressive increase in solar capacity, with new installations contributing to a total increase of 251% compared to the previous year.



#### Large-scale solar power generation system in North Macedonia



### NORTH MACEDONIA GRID POWER SYSTEM

The electric power production system in North Macedonia consists of two coal power plants with a total installed capacity of 825 megawatts (MW), several hydro power plants with a total

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### A Renewable Energy Future in North Macedonia , TNC

The results of the study are unambiguous: North Macedonia has an enormous untapped potential for renewable energy development. Even when ...



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## GEN-I second large solar power plant in North Macedonia begins

The GEN-I Group is expanding its activities to cover renewable energy. It has already built more than 10,000 small solar power plants in Slovenia and the large solar power ...

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### Guidance on large-scale solar photovoltaic (PV) ...

Guidance on designing and operating large-scale solar PV systems. Covers location, design, yield prediction, financing, construction, and maintenance.



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### Optimal site selection for photovoltaic power plants ...

Optimal site selection for photovoltaic power plants using a GIS-based multicriteria decision making and spatial overlay with electric load



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### EU-funded solar plant starts operating in North ...

The first large-scale solar plant in North Macedonia - financed with the support of the European Union, WBIF bilateral



donors and the European ...

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#### North Macedonia panka solar

An ex-coal mine reworked as North Macedonia''s first large solar An ex-coal mine reworked as North Macedonia''s first large solar plant. 30 Nov 2022. Copy link. Towering over the brambles ...



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### A Renewable Energy Future in North Macedonia, TNC

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### Solar Energy in North Macedonia: Opportunities With Photovoltaics

As North Macedonia transitions to a more sustainable energy future, the role



of solar energy has become increasingly significant. With its abundant sunlight and favorable climate, the country ...

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### North Macedonia puts its biggest solar power plant ...

It is the largest photovoltaic facility in North Macedonia and the Western Balkans. Prime Minister Dimitar Kovacevski said North Macedonia ...

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## GEN-I begins operating its second large solar power plant in North

GEN-I Group has launched its second large-scale solar power plant in North Macedonia, a 12 MW facility near Kavadarci that will generate up to 15,500 MWh of carbon ...



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### Turkish EPC Firm Hired For 10 MW North Macedonia Plant

The first large scale solar power plant of North Macedonia, the 10 MW project will





be located next to the existing Oslomej thermal power plant on previously what was a lignite ...

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### Integration of Large-Scale Renewable Energy in the Bulk

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1 Introduction Deployment of increasing amounts of renewable energy (RE) presents certain grid integration challenges for the bulk power system. Bulk power typically refers to large-scale



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## Large-Scale Solar Power Plants: Benefits and Challenges

Discover the benefits and challenges of large-scale solar power plants. Learn about energy efficiency, reduced emissions, and financing considerations.

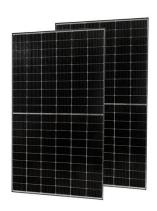
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### Key Operational Issues on the Integration of Large ...



Accurate forecasting of solar power generation and flexible planning and operational measures are of great significance to ensure safe, ...

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### Key Operational Issues on the Integration of Large ...

Solar photovoltaic (PV) power generation has strong intermittency and volatility due to its high dependence on solar radiation and other ...

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### Two Massive Solar Farms Coming to Macedonia, Greece

The projects will generate enough annual energy to supply 140,000 households. Public Domain ?eton Energy, a joint venture between RWE Renewables Europe & Australia ...



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## North Macedonia: Gen-I Group launches 12 MW solar power plant

The Slovenian Gen-I Group has inaugurated a solar power plant with an





installed capacity of 12 MW near Kavadarci, North Macedonia. This facility is expected to generate up ...

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## North Macedonia launches solar tenders for 35 MW of capacity

The government of North Macedonia has announced a tendering process for 62 MW of utility scale solar projects on public land. A first tender is for the construction of several ...



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## GEN-I begins operating its second large solar power plant in ...

The GEN-I Group has put a second large solar power plant into operation in North Macedonia, this time near Kavadarci. With a total power of 12 MW, the plant will generate up to 15,500 ...

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### Solar Energy in North Macedonia: Opportunities With

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As North Macedonia transitions to a more sustainable energy future, the role of solar energy has become increasingly significant. With its abundant sunlight ...

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## North Macedonia puts its biggest solar power plant into operation

It is the largest photovoltaic facility in North Macedonia and the Western Balkans. Prime Minister Dimitar Kovacevski said North Macedonia has proven that it can implement ...

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### North Macedonia solar boom: 20 MW Plant Drives Impressive

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Projected to generate 30 gigawatt hours of electricity annually, the plant will power approximately 10,000 homes. This impressive feat was achieved through the installation of ...



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### **EU-funded solar plant starts** operating in North Macedonia





The first large-scale solar plant in North Macedonia - financed with the support of the European Union, WBIF bilateral donors and the European Bank for Reconstruction and ...

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#### Solar PV Analysis of Skopje, North Macedonia

Solar PV Analysis of Skopje, North Macedonia Located in the Northern Temperate Zone, Skopje, North Macedonia (coordinates 41.9985 latitude and 21.4313 longitude) is highly suitable for ...



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