

Article Overview

Croatia's integrated power supply combines a national transmission and distribution network with modern renewable integration and emerging grid-scale storage solutions.

Overview of the Croatian Power System

Croatia's electricity system is managed by Hrvatski operator prijenosnog sustava (HOPS), which oversees the transmission network, ensures reliable electricity supply, and maintains high-voltage infrastructure while coordinating with distribution networks for nationwide coverage . The system includes high, medium, and low voltage grids, connecting power plants to consumers and facilitating imports and exports of electricity . HOPS provides real-time monitoring of generation and load, ensuring operational stability and efficient energy flow across the country .

Renewable Energy Integration and Modernization

Croatia is actively modernizing its power system to integrate renewable energy sources such as solar and wind. A landmark project in Sibenik involves the development of the country's first grid-scale battery energy storage system (BESS) and virtual power plant (VPP). This initiative, supported by the European Bank for Reconstruction and Development (EBRD), Raiffeisen Pension Funds, and the EU Modernisation Fund, will deploy up to 60 MW of battery storage and a VPP platform to balance electricity supply and demand in real time . This infrastructure enhances grid flexibility, supports decarbonization, and allows higher penetration of intermittent renewable energy.

Strategic Energy Planning

Croatia's Integrated National Energy and Climate Plan (NECP) outlines the country's energy and climate objectives for 2021-2030, aligned with EU regulations. Key goals include reducing greenhouse gas emissions, increasing renewable energy production, improving energy efficiency, and strengthening electricity interconnections . The plan emphasizes integrated strategic planning, reporting, and coordination across national and regional levels to ensure a resilient and sustainable energy system.

Key Features of the Integrated Power Supply

- o Transmission and Distribution Coordination: HOPS manages high-voltage transmission, while distribution networks deliver electricity to end-users .
- o Grid Flexibility: The BESS and VPP in Sibenik provide real-time balancing, enabling the integration of variable renewable sources .
- o Energy Security and Decarbonization: Investments in storage and smart grid technologies reduce reliance on

fossil fuels and support Croatia's transition to a low-carbon energy system .

o Regulatory Compliance: The system operates under EU energy governance frameworks, ensuring alignment with climate targets and energy market regulations .

Conclusion

Croatia's integrated power supply is a combination of a robust transmission and distribution network, strategic energy planning, and innovative technologies like grid-scale battery storage and virtual power plants. These developments enhance grid reliability, renewable energy integration, and energy independence, positioning Croatia for a sustainable and resilient electricity future .

HEP also supplies 55% of gas retail market. - Croatia's Energy Supply & Demand: Croatia's energy supply relies heavily on

The programme marking the 130th anniversary of the establishment of the first electric power system in Croatia concluded with a

Because Croatia uses a different outlet type to the US, American travelers will need to purchase an appropriate travel

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

With the global focus on renewable energy and the transition towards cleaner technologies, industrial power supply providers in

Croatia's transmission system operator HOPS will receive a EUR 99.5 million grant to upgrade its power transmission

System Operation HOPS carries out the energy activity of transmission of electricity produced in Croatia or imported from other

Our mission Management of the electricity system of the Republic of Croatia, transmission of electrical energy, and maintenance,

Croatia's National Energy Strategy 2009-2020 has three basic objectives: increase security of

Croatia recorded a landmark year for renewable energy in 2025, with solar, wind and

The majority of energy is generated through hydropower, with the highest quantity of water resources per



Croatian Integrated Power Supply

capita in the European

Genera, the Croatian subsidiary of the UK-based Dechra Pharmaceuticals, has officially opened the country's largest

It represents all the energy required to supply end users in the country. Some of these energy sources are used directly while most

The Energy Development Strategy defines the optimal energy mix and development projects to ensure the energy independence of

Eastern European utilities integrate more renewable energy sources into their grids with reactive power compensation and other

Are you looking for information on electricity law and regulation in Croatia? This CMS Expert Guide provides you with

Web: <https://bssoda.pl>

