



Vidin at a Glance





Vidin, in north-western Bulgaria on the Danube River near Romania and Serbia, has a **population of around 41,583**. Covering 63.218 km², it is the administrative and economic center of its municipality and district. The temperate-continental climate has average annual temperatures of +11.2°C, with January lows of -2.2°C and July highs of +22.9°C. Vidin's **strategic location**, including the "New Europe" bridge to Calafat, Romania, integrates it into the national and European transport network.

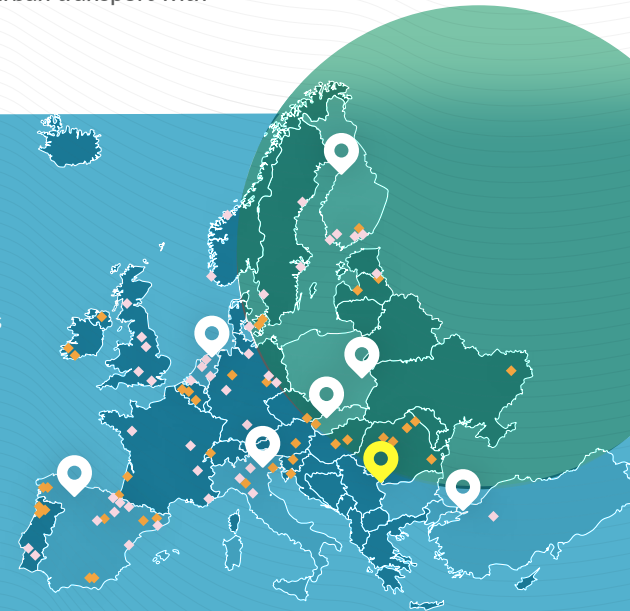
Despite **economic challenges** and low living standards, Vidin's energy vision aims to improve by 2050 by reducing GHG emissions, enhancing energy efficiency, and promoting sustainable development. Initiatives include transforming buildings into **nearly zero-energy buildings (NZEB)**, optimizing heating systems, introducing **renewable energy**, integrating **energy storage and management systems**, and improving urban transport with e-vehicles and electro buses.

Follower City in the Scalable Cities Community

As part of the Scalable Cities Community, which includes 120 cities across 18 Smart Cities and Communities, Vidin stands as one of the six follower cities in the MAKING-CITY project. Its objective is to adapt, replicate, and implement Positive Energy Districts (PED) in two urban zones: Himik and Bononia.

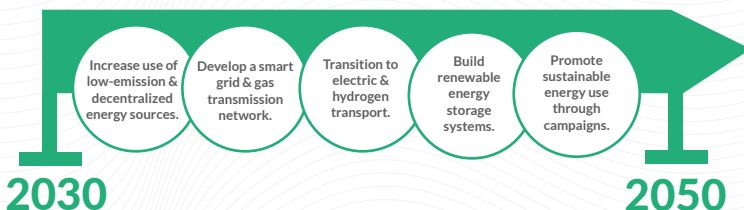
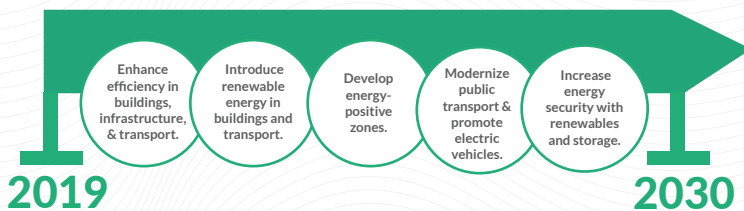
Vidin's energy vision until 2030 and 2050 prioritizes reducing GHG emissions, increasing energy efficiency, and enhancing the quality of life for its residents, while ensuring sustainable economic development. Through its participation in the MAKING-CITY project, Vidin is dedicated to embracing the concept of energy-positive zones.

-  Vidin
-  The 7 other MAKING-CITY cities
-  48 Lighthouse Cities
-  72 Follower / Fellow Cities



Scan the QR code to access the interactive online map with all 120 cities or access the list of the 18 EU project.

Vidin's Decarbonization Strategy



Mid-Term Energy Vision (2030):

Vidin will enhance energy efficiency, introduce renewable energy, develop energy-positive zones, modernize public transport, and improve energy security with renewable sources and storage systems.

Long-Term Energy Vision (2050):

Vidin aims for high independence from fossil fuels, a smart energy grid, zero-emission transport, and robust energy storage, supported by education campaigns for sustainable energy use.

Vidin's roadmap from PED to climate-neutral cities mission

What is a PED according to MAKING-CITY?

A **Positive Energy District (PED)** is an eco-friendly urban area that **produces more renewable energy** that it uses. It utilizes sustainable technologies, energy efficient buildings and smart grids to ensure environmental sustainability, community engagement and reduce its carbon footprint. PED is an example of **sustainable urban living and a greener future**.



Scan the QR code to access the video «The green future of Vidin through the eyes of the young» and discover our follower city Vidin and its actions as part of its longterm energy vision!

Case studies: Vidin's two PED areas

Case study for PED zone Himik

Before the intervention, the School "St. Cyril and Methodius" in Vidin, with 8,176 sq.m. of heated area, had poor insulation, used industrial gas oil for heating, and had high energy costs (€40,650 annually) and a low energy class (E).

Post-intervention, the school improved to an A+ energy class by insulating walls and roof, installing PVC double-glazed windows, a geothermal heat pump, LED lighting, and a 77 kWp PV system with 60 kWh storage. These upgrades resulted in significant savings (BGN 92,800 annually) and increased sustainability, with 91.8% of energy needs met by renewables.



Scan the QR code to watch a video about the renovation works in the school.



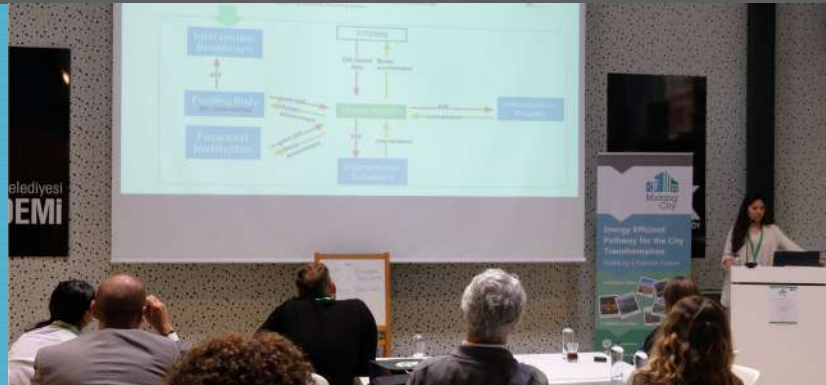
Case study for PED zone Bononia

The project entails thermal insulation for external structures like roofs and floors, along with installing a heat pump for heating, cooling, and hot water generation with an efficient heating system for cost-effectiveness. LED lighting fixtures will replace the existing ones, and renewable energy sources (RES) will be introduced for self-consumption. This includes a 51.7 kWp photovoltaic system for self-use without grid feeding and a 20 kWh lithium-ion energy storage.

A hybrid 3-phase inverter will manage surplus energy, storing it in batteries with a lifespan of over 6000 cycles, and distributing it during low production periods. This aims to reduce final energy consumption and greenhouse gas emissions in line with Vidin city's long-term vision.

Citizens should be more involved in the city's initiatives, so that their needs can be met.

Business and industry should be more involved in the city action plans.



Improved task allocation and increased capacity building within the municipality are essential to reach climate neutrality.

Daniela Kostova, Energy Management Expert @Green Synergy Cluster, Plovdiv

Capacity Building & Citizen Engagement in Vidin

The energy transition requires greater **citizen engagement, public institutions and local businesses in energy projects at the municipal level**. It is important to communicate the social, economic and environmental benefits of the energy transition to citizens in order to increase acceptance of the actions involved. A recent **workshop** in Vidin showcased the **city's long-term energy strategy** and alternative scenarios for 2050. Representatives from local administration, media, and citizens attended, exploring the concept of Positive Energy Districts, with examples from public buildings like schools and kindergartens. Key to this engagement is providing **support tools** to the local administration for promoting public awareness. The following can be listed for Vidin:

Legal & Financial Support

Creating a favorable regulatory framework and developing new financial models to support local initiatives for self-consumption and energy efficiency.

One-Stop Shops

Establishing entities that integrate information, user skills, and installation services to facilitate self-consumption.

Support Materials

Providing well-organized and accessible resources such as guides, templates, training materials, and case studies.

Communication Campaigns

Conducting education and outreach efforts targeting all stakeholders (public, private, and citizens).



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