



Towards 100 Positive Energy Districts and Neighbourhoods

European cities as a global role model for urban transitions

Europe aims to be a global role model in energy transition and reducing its carbon footprint. Cities and the building sector play a decisive role in that process. The Programme “Positive Energy Districts and Neighbourhoods for Sustainable Urban Development”¹ and 17 member states, aims to support 100 Positive Energy Neighbourhoods by 2025.

Why “Positive Energy districts and Neighbourhoods”?

Urban development must move from mere building solutions to Positive Energy Districts and Neighbourhoods and similar innovative concepts to reach the European energy and climate targets². As an integral part of comprehensive sustainable urbanisation strategies, establishing Positive Energy Districts and Neighbourhoods shifts the focus from the individual positive energy building towards neighbourhoods and thus a new level of impact on sustainable urban development and the energy transition process.

The positive energy districts and neighbourhoods programme



The Programme has been developed as a cooperation of 17 European countries, the European Commission and different stakeholder groups with the intention of establishing a **transnational, intergovernmental initiative for planning and replication of Positive Energy Districts and Neighbourhoods**. In order to boost urban energy transition, the programme hosted by JPI Urban Europe involves stakeholders from R&I funding networks, cities, industry, research and citizen organizations.

Fig. 1: Current member states of the Programme on Positive Energy Districts and Neighbourhoods

Challenges and requirements

In order to become a successful model, PEN deployment processes will have to tackle a range of challenges (fig. 2), consider regional differences within Europe and provide open experimental space for smart innovative solutions.

A circular pathway (fig. 3) of monitoring, experimenting, developing guidelines and replication provides the framework for mainstreaming urban solutions of energy transition within the years to come. Finally, yet importantly, success of implementation will strongly depend on citizen acceptance and therefore will have to account for affordability and an actual improvement of quality of life for the citizens.

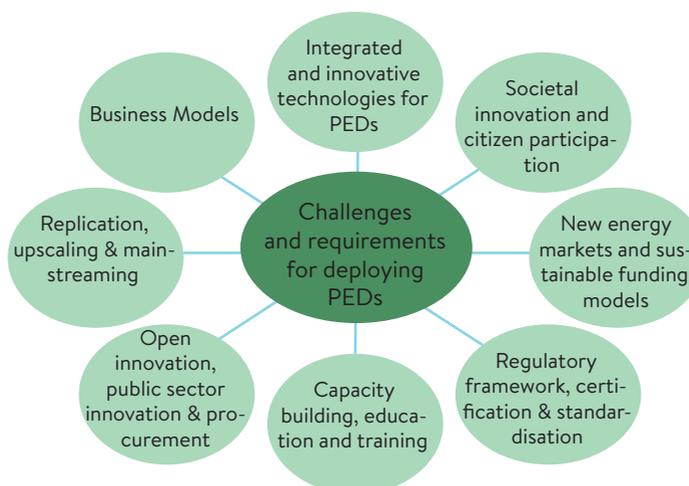


Fig. 2 Key challenges and needs for deploying PENs

What is a Positive Energy District/Neighbourhood?

Positive Energy Districts and Neighbourhoods are an integral part of **comprehensive approaches towards sustainable urbanisation including technology, spatial, regulatory, financial, legal, social and economic perspectives**. They require **interaction and integration between buildings, the users and the regional energy, mobility and ICT system**.

In this sense, a Positive Energy District is seen as **an urban neighbourhood with annual net zero energy import and net zero CO₂ emissions working towards a surplus production of renewable energy, integrated in an urban and regional energy system**.

A Positive Energy District **couples built environment, sustainable production and consumption, and mobility** to reduce energy use and greenhouse gas emissions and to create added value and incentives for the consumer. Furthermore, implementation has to come **with a high and affordable standard of living for its inhabitants**.

¹ Set-up in SET Plan Action 3.2 on Smart Cities Implementation Plan

² By 2030: at least 40 percent cuts in greenhouse gas emissions compared to 1990 levels, at least 27 percent share for renewable energy, at least 27 percent

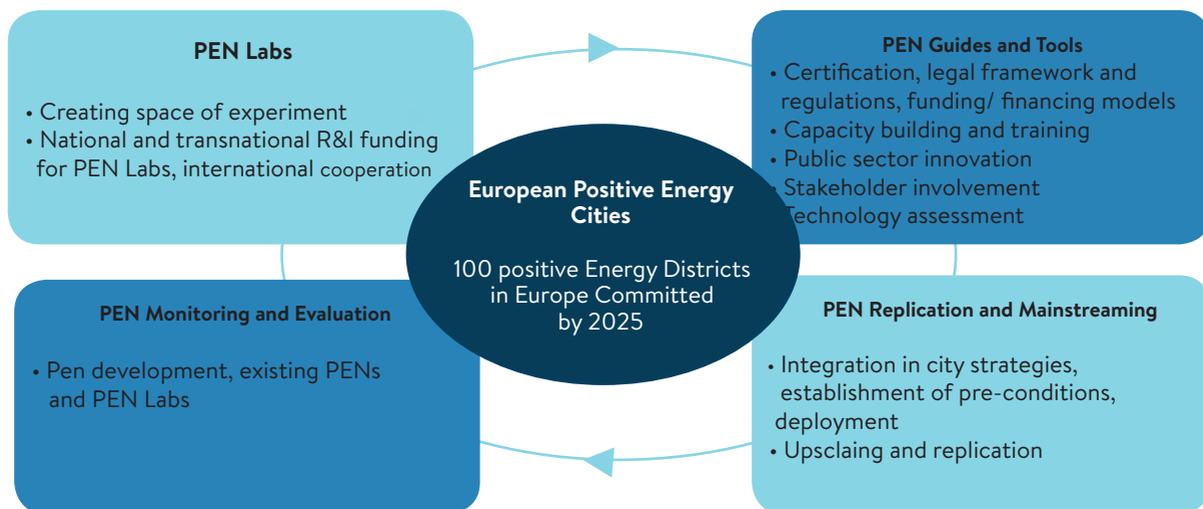


Fig. 3 Circular pathway

Cities as driving forces

Municipalities and urban actors play a key role in achieving energy and climate targets. By creating the pre-conditions cities and communities are the driving forces behind establishing Positive Energy Districts and Neighbourhoods. European cities are already very active in integrating strategies of sustainable urbanisation – the Programme on Positive Energy Districts and Neighbourhoods offers partnership and support for cities in the next step of sustainable urban development and becoming frontrunners in the field of energy transition. Being part of the problem means being part of the solution: cities consume two thirds of energy supply and 70 percent of CO₂ emission come from urban environments. Together we will develop feasible and socially sound pathways for creating liveable urban neighbourhoods meeting the challenges of the 21st century.

The programme will provide:

- A PED framework including guidelines and tools references
- A multi-stakeholder platform developing implementation pathways
- Exchange of good practice, experiences and visions with other European cities
- The forming of a network of European Positive Energy Cities
- Funding schemes for R&I projects, piloting and validating of PED concepts

The Strategic Energy Technology (SET) Plan

The SET-Plan is a first step to establish an energy technology policy for Europe in order to achieve Energy and Climate Change goals.

The SET Plan focuses on 10 key actions fields, of which **action 3.2 on “Smart Cities and Communities” aims to support the planning, deployment and replication of 100 Positive Energy Districts by 2025 for sustainable urbanisation.**

setis.ec.europa.eu/

The Joint Programming Initiative (JPI) Urban Europe

JPI Urban Europe’s vision is to be the **European platform to create and make available knowledge and robust evidence for sustainable urban development.**

Twenty European countries participate in the initiative, 70+ projects have been funded with approx. 100 million Euro public investment spent for joint calls. JPI Urban Europe has established cooperation schemes with Belmont Forum and China.

jpi-urbaneurope.eu/

Interested in joining the European Positive Energy Cities Network?

Get in contact with us!

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