



simply positive

TOWARDS POSITIVE ENERGY DISTRICTS

**Best Practice Guideline for
Districts and Neighborhoods**



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Welcome to the Positive Energy District (PED) Development Guide!



www.simplypositive.eu

This booklet is designed for municipalities, private real estate developers, and other stakeholders eager to embark on the journey of creating a Positive Energy District. PEDs represent a transformative approach to urban development, offering a sustainable and economically viable solution to energy needs.

Our goal is to equip you with practical insights and examples that showcase the multitude of advantages PEDs provide. These benefits encompass environmental improvements, such as significant reductions in greenhouse gas emissions, as well as policy advantages that align with national and international climate commitments. Ultimately, the social and economic benefits culminate in a better quality of life for all, ensuring a stable and affordable energy system accessible to everyone.

The recommendations and strategies included in this booklet are drawn from the international project Simply Positive. This document synthesizes key lessons learned and deliverables from the project, serving as a comprehensive resource for PED developers. It encapsulates our commitment to supporting cities on their pathways to achieving Positive Energy Districts.

The structure of this guide follows the Simply Positive methodology for implementing flagship Positive Energy Districts. It highlights essential steps derived from the Covenant of Mayors framework for developing effective Sustainable Energy and Climate Action Plans.

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Advantages and Definition of PEDs



Our PED definition

A **Positive Energy District (PED)** is defined by a quantitative balance evaluation across three main components. These **system boundaries** are defined spatially, temporally, and functionally:



SPATIAL: The physical boundaries of energy services.



TEMPORAL: The balancing period, typically one operational year.



FUNCTIONAL: Identification of specific energy functions to include or exclude based on purpose, not proximity.

The **functional boundaries** include three groups and form three PED variants:

1. **PED Alpha** focuses on operational energy and user electricity,
2. **PED Beta** includes mobility aspects,
3. **PED Omega** accounts also for embodied energy related to construction and mobility.

Each layer introduces more complexity and uncertainty, necessitating comprehensive data for simulation and validation, including general characteristics, energy usage, building locations, climate factors, and physical building attributes.

Recognized at the EU level, PEDs offer numerous benefits:

- ▶ **Sustainability:** Utilize renewable energy sources, reducing fossil fuel reliance and greenhouse gas emissions.
- ▶ **Energy Efficiency:** Incorporate smart grid technologies, optimizing energy consumption.
- ▶ **Energy Independence:** Generate more energy than consumed, enhancing self-sufficiency.
- ▶ **Economic Growth:** Create jobs in the renewable energy sector and stimulate local economies.
- ▶ **Quality of Life:** Provide a cleaner environment and reduced energy costs, improving living conditions.
- ▶ **Resilience:** Supply stable energy, crucial during crises.
- ▶ **Innovation:** Encourage cutting-edge technology development.
- ▶ **Community Engagement:** Foster local participation in energy planning.
- ▶ **Policy Alignment:** Support national and international sustainability goals.

GUIDING PRINCIPLES

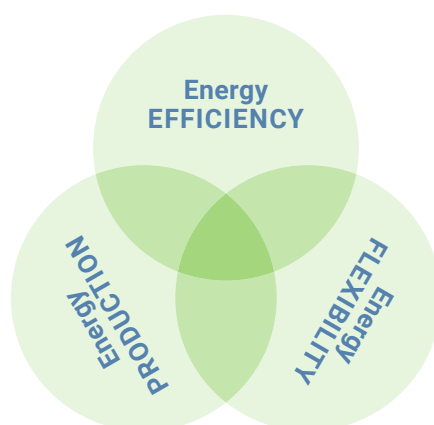
Sustainability

Resilience and security of energy supply

Inclusiveness and affordability

Quality of life

ENERGY FUNCTIONS



ENABLERS

Political vision and governance framework

Active involvement of problem owners and citizens

Integration of energy and urban planning

ICT and data management

"Positive Energy Districts are energy-efficient and energy-flexible urban areas or groups of connected buildings which produce net zero greenhouse gas emissions and actively manage an annual local or regional surplus production of renewable energy. They require integration of different systems and infrastructures and interaction between buildings, the users and the regional energy, mobility and ICT systems, while securing the energy supply and a good life for all in line with social, economic and environmental sustainability."

For more information: <https://jpi-urbaneurope.eu/ped/>

Setting the Stage for Your PED Project

As a PED initiator, the first step is to carefully consider the system boundaries of your planned project. The definition of a Positive Energy District is inherently complex and requires a multi-dimensional approach. This includes determining both the physical and functional boundaries, as well as the specific energy services to be included in your project.

In this initial setup phase, it's essential to understand the broader city context, including goals, targets, and commitments. Consideration must also be given to national strategies and alignment with Sustainable Development Goals (SDGs). This holistic view will guide your decisions and ensure that your project aligns with existing frameworks.

Stakeholder mapping and engagement planning are crucial components of this process. Identifying relevant stakeholders is vital as they can significantly impact the project's success. Key stakeholders to consider include:

- ▶ **City Administrators:** They can provide insights into regulations and local priorities.
- ▶ **Community Members:** Engaging residents ensures their needs and concerns are addressed, fostering a sense of ownership.
- ▶ **Private Sector Partners:** Real estate developers and energy service providers can bring expertise and resources to the table.
- ▶ **Environmental Organizations:** These groups can offer support in promoting sustainable practices and gaining community trust.



Additionally, think about who will benefit from the project and who may be motivated to support it. This might include local businesses, schools, and community centers that stand to gain from improved energy efficiency and sustainability measures.

Once you've mapped stakeholders and contextual information, you can formulate a comprehensive PED Strategy. This strategy will serve as the foundation for outlining actions and creating specific implementation plans.



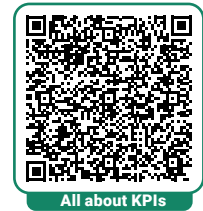
During this phase, consider leveraging resources from the Simply Positive project to clarify your PED definition, deepen your understanding of the local context, and identify applicable frameworks for optimizing your project through key performance indicators (KPIs).

Why do we need PEDs?

- ▶ PEDs for climate neutrality
- ▶ PEDs respond to multiple challenges
- ▶ PEDs for retrofitted neighbourhoods
- ▶ PEDs for energy justice
- ▶ PEDs for affordable energy transition and new market opportunities



Measuring Success: The Importance of KPIs for Your PED Project



As you embark on the journey to transform your area into a Positive Energy District (PED), establishing a robust guiding system is essential. This system will not only help you to track progress but also enables comparisons with peer districts, fostering continuous improvement.



To facilitate this process, we recommend utilizing a standardized set of Key Performance Indicators (KPIs). These indicators provide a uniform framework for describing the specific circumstances of your PED project, making it easier to analyze and assess outcomes effectively.

Profiling Indicators

We have identified seven essential profiling indicators that will serve as the foundation for your project:

- ▶ **Size of Focus District** [m²]
- ▶ **Population of Focus District** [# of citizens]
- ▶ **Density of Focus District** [# citizens / m² of total area]
- ▶ **Built-Up Density** [m² of built-up area / m² of total area]
- ▶ **Heating Degree Days** [#]
- ▶ **Cooling Degree Days** [#]
- ▶ **Average Household Income** [EUR]

These profiling indicators will help you establish a clear context for your project, setting the stage for targeted performance evaluation.

Primary Performance Indicators

In addition to profiling indicators, we suggest a focused set of primary performance indicators that emphasize the energetic and environmental outcomes of your district, as well as the quality of the implementation process. The following ten indicators are crucial for measuring success:

- ▶ **Overall Indicator:** PED / PEN Achievement Rate [%]
- ▶ **Final Energy Consumption** [kWh/a]
- ▶ **Primary Energy Consumption** [kWh/a]
- ▶ **Renewable Energy Source (RES) Generation** [kWh/a]
- ▶ **Degree of Renewable Energetic Source Self-Supply** [%]
- ▶ **Greenhouse Gas Emissions** [kgCO₂eq/a]
- ▶ **Acceptance measured by People Reached** [%]
- ▶ **Acceptance measured as Success Rate** [%]
- ▶ **Money Spent** [€]
- ▶ **Return on Investment (ROI)** [years]

These primary indicators will serve as benchmarks, guiding you towards achieving a positive energy balance while ensuring the project remains financially viable and publicly accepted.

Tailoring Secondary Indicators

Finally, it's essential to define secondary indicators collaboratively during the initial phase of your PED project. Engaging stakeholders in this process allows for the alignment of strategic targets and specific measurements. These indicators may encompass mobility solutions, targeted implementation of distributed energy resources (DERs), energy-saving initiatives, and more.

By adopting a structured approach to KPIs, you can effectively monitor your project's trajectory, make data-driven decisions, and communicate progress to stakeholders. They support a successful transition process to a Positive Energy District.



Engaging Your Stakeholders: A Key to Successful PED Development

Effective stakeholder engagement is essential for the successful development and implementation of Positive Energy Districts (PEDs). Below we present a robust stakeholder strategy designed to facilitate meaningful involvement throughout the PED lifecycle.

A Sequential Engagement Process

To effectively engage stakeholders, follow this approach:

1. **DEFINE the Energy System:** Understand the unique energy dynamics of your district.
2. **IDENTIFY Key Stakeholders:** Pinpoint the individuals and groups essential to your project.
3. **DEVELOP Engagement Strategies:** Create strategies to actively involve stakeholders in the PED framework.



Objectives of Stakeholder Engagement

The engagement process aims to achieve several core objectives:

- ▶ **Raise Awareness:** Educate stakeholders about the benefits of PEDs and their role in achieving climate neutrality.
- ▶ **Foster Policy Support:** Encourage local policy-makers to integrate PEDs into urban planning.
- ▶ **Secure Funding:** Mobilize resources for PED initiatives.
- ▶ **Leverage Expertise:** Collaborate with experts for innovative solutions.
- ▶ **Gather Feedback:** Collect insights from stakeholders to refine strategies.

Key Communication Channels

Maximize stakeholder engagement through tailored communication channels:



For Municipalities

Targeted engagement strategies for municipalities are crucial:

- ▶ **Workshops and Public Events:** Facilitate education sessions and community activities to demonstrate PED benefits.
- ▶ **Conferences and Policy Briefs:** Attend events to showcase progress and develop informative documents outlining benefits.
- ▶ **Newsletters:** Provide updates on project developments to keep stakeholders informed.

For Technical Partners

Engage technical partners to ensure project feasibility:

- ▶ **Scientific Publications and Training:** Share research and offer training sessions on emerging technologies.
- ▶ **Field Trips:** Organize visits to successful PED implementations to inspire others.

Building a Strong Team

Effective stakeholder engagement is crucial for rallying a strong team around your vision. By identifying the right partners and using targeted communication strategies, you can create a supportive network that contributes to the success of your Positive Energy District initiative. Together, you can navigate challenges and work toward a sustainable, energy-efficient future.

For the General Public

Public engagement builds community support:

- ▶ **Social Media and Local Newspapers:** Utilize these platforms to share updates and reach a wider audience.
- ▶ **Campaigns and Interactive Tools:** Use catchy messages and tools to illustrate energy savings and benefits.

Tailoring Messages for Impact

Enhance communication effectiveness by tailoring messages to each stakeholder group:

- ▶ **Municipalities:** Highlight cost savings and local climate contributions.
- ▶ **Technical Partners:** Emphasize opportunities for innovation.
- ▶ **General Public:** Focus on improved quality of life and community resilience.

Establishing the Energy Framework for Your PED Project



To effectively operationalize your Positive Energy District (PED), it's essential to develop a strategy based on your vision of the future PED. This strategy should prioritize energy balance calculations and simulations to guide your decision-making toward achieving PED goals.

Understanding Energy Balances

Energy balances focus on three key areas:

1. **Energy Production:** Assessing how much energy is generated within the district.
2. **Energy Consumption and Savings:** Analyzing energy use across different sectors and identifying opportunities for savings.
3. **Energy Flexibility:** Considering storage options to manage energy supply and demand effectively.

Dataset Formation Process

After characterizing the focus district, the dataset formation process begins. It involves describing district boundaries and identifying essential data sources, including:

- ▶ Climate and weather databases
- ▶ Energy monitoring and statistical data
- ▶ Building documentation databases
- ▶ Geographic Information System (GIS) resources

In this stage, district representatives may need assistance from experts if specific data cannot be directly obtained. If data is unavailable, reasonable assumptions should be made. All collected information must be organized into the required format for the energy balance calculations.

Benefits of Energy Balance Calculations

Once you complete energy balance calculations and simulations, you can:

- ▶ Determine investment costs for proposed initiatives.
- ▶ Prioritize investments and efforts based on potential returns and impact.

Stages of PED Assessment

The process of assessing your PED can be divided into three main stages:

1. **Focus District Characterization:** Defining the boundaries of the district, including energy flows, geographic limits, development goals, and key performance indicators. This stage is primarily analytical, driven by expert insights and stakeholder input.
2. **Dataset Formation:** Although not extensively covered in literature, the quality of your initial dataset significantly influences the accuracy of subsequent energy balance calculations. During this stage, you will formalize the preparation of data for analysis.
3. **Energy Balance Assessment:** This is where the actual energy calculations occur based on the datasets prepared.

Importance of the Primary Energy Conversion Factor

The Primary Energy Conversion Factor is vital for assessing energy balance in your PED. This factor can fluctuate based on seasonal changes, weather conditions, and the amount of renewable energy used for electricity production. For each focus district in the Simply Positive project, PEF values were selected based on existing scientific literature, while relative assumptions were made where data was lacking.



Schematic representation of the FD in Amsterdam

Conclusion

By thoroughly understanding and preparing for energy data collection and analysis, you set a solid foundation for your PED initiatives. A well-defined energy framework will empower you to make informed decisions, leading to a successful transformation into a Positive Energy District.

Example of Energy Balance Assessment: Fiat Village, Settimo Torinese



To illustrate the process and outcomes of energy balance assessments, here's a practical example from the Simply Positive project, focused on the Fiat Village in Settimo Torinese. This case demonstrates a structured approach to achieving a Positive Energy District (PED) and can serve as a valuable reference for your own initiatives.

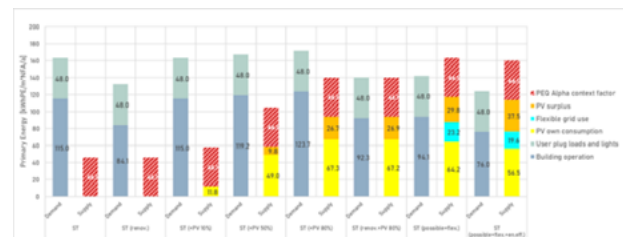
Recommended Process

The following steps were implemented during the assessment of the focus district:

- 1. Describing the Focus District:** Establishing the boundaries and characteristics of the area to be analyzed.
- 2. Collecting Input Data:** Gathering necessary data while addressing gaps through literature-based assumptions.
- 3. Setting Development Goals:** Collaborating with stakeholders and city representatives to define shared objectives.
- 4. Assessing Renewable Energy Sources (RES) Potential:** Evaluating yearly solar irradiation and analyzing available roof areas for PV installations.
- 5. Gathering Primary Energy Factors:** Collecting data for the focus district's energy characteristics and supplementing with regional or national data when necessary.

Results and Insights

The results of the energy balance analysis revealed that the primary pathway toward achieving a PED for the Fiat Village lies in the installation of PV panels, given the district's advantageous location with high solar irradiation potential. The analysis also showed that implementing flexible grid usage significantly enhances the integration of renewable energy sources within the district. This approach allows for a reduction in overall energy demand while maintaining a stable energy supply.



Sample energy balance



Settimo Torinese plot area

Energy Balance Analysis and Pathways to PED

Armed with this information, we performed an analysis of the current energy balance of the Fiat Village and explored transition pathways toward achieving PED status. This included evaluating energy balances after various renovations (such as window replacements and wall insulation), the introduction of photovoltaic (PV) systems, and the usage of improved heat pumps. Additionally, we considered flexible grid usage based on the availability of renewable energy sources.

Call to Action for PED Initiators

This example from the Simply Positive project not only highlights the practical steps involved in energy balance assessment but also serves as inspiration for your own PED initiatives. By following a similar process, you can identify the most effective strategies for achieving a positive energy balance in your region.

Engaging with stakeholders, analyzing energy data, and exploring various energy solutions will set you on the path toward creating a sustainable and energy-efficient community.

Enhancing Energy Balance:

Three Key Opportunities for Your PED Project

To optimize the energy balance in your Positive Energy District (PED), it's essential to explore strategies that enhance energy performance and sustainability. In this chapter, we highlight three impactful approaches:

1. **Maximization of Solar Gains through Automated Mapping of PV Potential:**

Harnessing solar energy is crucial for PED initiatives. Utilize automated mapping techniques to assess photovoltaic (PV) potential, identifying optimal locations for solar panel installation to maximize energy production.

2. **Calculation of Future Energy Needs and Storage Solutions with Electric Vehicles:**

Integrating electric vehicles (EVs) offers a unique opportunity to evaluate future energy demands and enhance storage capabilities. Understanding how EVs contribute to energy needs will help optimize consumption and storage strategies.

3. **Implementing Energy Reduction Measures through Behavioral Change and Demand-Side Strategies:**

Sustainable energy use involves shifting community behaviors. By promoting energy-efficient practices and demand-side measures, you can drive significant reductions in energy consumption.



Each of these strategies provides practical pathways for advancing your PED project, fostering a more energy-efficient urban environment. In the following sections, we will explore each opportunity in detail, offering insights and actionable recommendations for effective integration.

Maximizing Solar Gains: Automated Mapping of PV Potential

Understanding the photovoltaic (PV) potential of a district is crucial for setting realistic goals and designing effective Positive Energy Districts (PEDs). A geo-referenced map created for Amsterdam provides valuable insights into optimizing solar energy production.

This mapping process involves several key steps:

1. **Roof Section Detection:** Identifying suitable areas for solar panel installation.
2. **PV Module Fitting:** Analyzing and fitting PV modules to optimize energy yield.
3. **Energy Yield Estimation:** Calculating the maximum potential energy output.
4. **Realistic Assessments:** Considering roof usage, technology performance, and specific building limitations to provide a more accurate potential.

By layering various data, this methodology enhances mapping accuracy, highlighting both the opportunities and challenges of solar installations in urban areas. Additional considerations, such as roof uses and voltage fluctuations, are crucial for comprehensive analysis.

The results indicated that integrating PV-T (Photovoltaic-Thermal) systems can significantly improve energy efficiency, combining both electrical and thermal energy generation. This approach accelerates the transition to natural gas-free cities by optimizing space for energy collection.

Recommendations for Your Project

To leverage these findings in your PED initiative, consider the following strategies:

- ▶ **Utilize Automation:** Implement automated mapping technologies for efficient PV installation assessments, similar to aerial photography techniques used in the Netherlands.
- ▶ **Engage Stakeholders:** Foster collaboration among governmental bodies, community organizations, and private enterprises to ensure alignment with local needs.
- ▶ **Consider New Technologies:** New technologies like PV-T systems may help to maximize potential in your energy plans.
- ▶ **Incentivize Adoption:** Explore policies that provide financial incentives for adaptation measures.

By thoroughly analyzing your district's needs and potentials, engaging stakeholders, and seeking financial support, you can effectively work towards achieving a positive energy balance in your PED. Raising awareness and monitoring performance will further enhance the impact of your energy-positive initiatives.

Understanding Electric Mobility Demand in Your PED

When designing a Positive Energy District (PED), it's essential to incorporate private electric mobility as part of your energy services. The energy balance for a PED, particularly in a Beta-PED model, must account for electricity consumption related to various mobility types.

Key Factors Impacting Electric Mobility Demand

1. **High Annual Energy Demand:** The energy consumption for electric vehicles (EVs) is substantial, often comparable to that of an average household.
2. **Unpredictable Demand Timing:** Charging times can vary greatly, making it difficult to forecast when energy will be needed.
3. **Variable Instantaneous Power Demand:** The energy requirements fluctuate based on multiple infrastructural factors.

With the ongoing rise in EV adoption across Europe, understanding electric mobility demand is crucial for anticipating challenges on the local electricity grid.



Considerations for Predictive Modeling

When forecasting electric mobility demand, several aspects should be taken into account:

- ▶ **EV Count:** Knowing the number of electric vehicles is crucial for quantifying energy demand for recharging.
- ▶ **Driver Behavior Patterns:** Understanding daily travel distances and preferred charging times helps to predict peak power loads.
- ▶ **Charging Infrastructure:** Awareness of the distribution and characteristics of charging points is vital for assessing load on the grid.
- ▶ **Temporal Sensitivity:** A detailed temporal resolution (hourly or shorter) allows for a clearer understanding of instantaneous grid load management.

Encouraging Behavioral Change for Energy Reduction in Your PED

Demand-side actions by residents – such as behavioral changes and the adoption of sustainable technologies – are vital in transitioning to a Positive Energy District (PED). Insights from the SIMPLY positive project highlight the significant impact residents can have on lowering their environmental footprint while enjoying financial benefits.

Key Strategies for Residents

1. **Promote Awareness:** Identifying inefficient appliances and usage patterns empowers residents to make sustainable choices without a significant financial burden.
2. **Optimize Energy Use:** Simple adjustments, such as adapting room temperatures to daily usage patterns, can lead to substantial savings. For instance, lowering the temperature by 1°C in a 205 m² household can save around 540 kWh annually, while optimizing temperatures could result in savings of up to 900 kWh. This translates to financial benefits of €70-200 per year and district-wide savings of approximately 123,000 kWh, as observed in our focus district in Austria.
3. **Adopt Sustainable Practices:** Encouraging residents to switch to e-bikes or carpool can reduce energy consumption. More significant actions, such as thermal renovations or transitioning from combustion vehicles to electric cars, can yield even greater savings.



Resident Testimonials

Example 1: A family renovated their 300 m² home with insulation and new windows, resulting in a 7,000 kWh reduction in annual energy use and savings of €840. They also reported improved indoor comfort and reduced noise issues. If similar renovations were made to all old buildings in their town, they could collectively save about 3,500 MWh annually.

Example 2: Another household replaced one combustion car with an electric vehicle powered by renewable electricity. This change could save approximately 7,000 kWh and reduce greenhouse gas emissions by 3,000 kg annually, along with cutting costs by about €1,000. If all households adopted this change, the potential savings for the district could reach 400,000 kWh and 174,000 kg of greenhouse gas emissions each year.

Encouraging Engagement

Public subsidies and consultations can further motivate residents to implement these examples, driving significant energy savings district-wide.

By fostering awareness and facilitating sustainable practices, you can empower residents within your PED to make impactful changes that contribute to overall energy efficiency and environmental sustainability. Together, these efforts can achieve substantial energy reductions, ultimately leading to a successful transition to a Positive Energy District.

Practice Examples: Learning from Success

In the pursuit of developing Positive Energy Districts (PEDs), leveraging existing knowledge and success stories is crucial. By examining proven strategies and best practices, PED initiators can avoid reinventing the wheel and expedite their progress towards sustainability. These examples not only provide inspiration but also demonstrate effective actions that have yielded tangible results, making them invaluable resources for your own initiatives.

Best Practices and Success Stories from Focus Districts



Achieving Positive Energy Districts (PEDs) requires actionable strategies and proven best practices. Here are key actions, along with quantifiable Key Performance Indicators (KPIs) to inspire your district's journey towards energy efficiency, renewable energy, sustainable mobility, and community engagement:

- 1. Energy Efficiency:** Focus on retrofitting public buildings with energy-efficient systems like LED lighting and improved insulation. This can lead to a substantial reduction in energy consumption and greenhouse gas emissions.
- 2. Renewable Energy Production:** Maximize renewable sources by installing solar panels on residential and public buildings. Development of community energy systems can increase local energy resilience.
- 3. Sustainable Mobility:** Establish cycling and pedestrian infrastructure along with electric vehicle charging stations to reduce transportation-related emissions and promote green transport.
- 4. Stakeholder Engagement:** Involve local governments, residents, and businesses through participatory planning, fostering a sense of ownership and commitment to the PED.
- 5. Urban Planning and Land Use:** Integrate energy planning in zoning regulations, promoting the construction of high-efficiency buildings and green spaces that enhance climate resilience.
- 6. Innovative Technology Integration:** Embrace smart grid technologies and energy management systems to optimize energy use and efficiency.
- 7. Climate Change Adaptation:** Implement rainwater management systems and flood-resilient designs to ensure your district can withstand climate impacts.

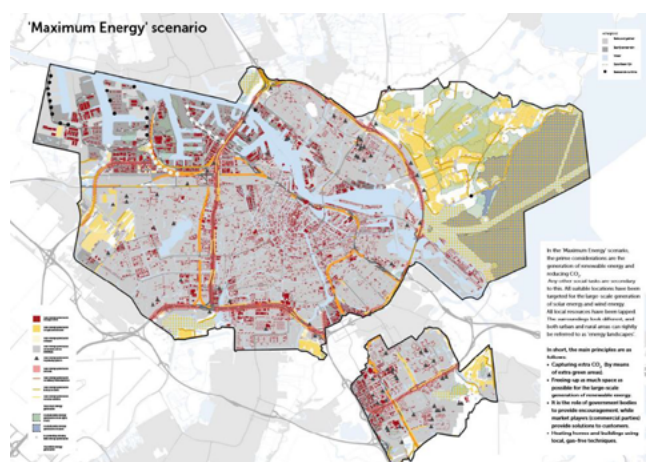
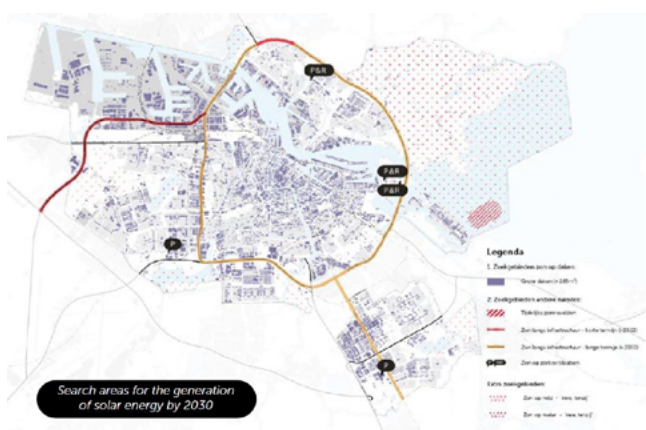
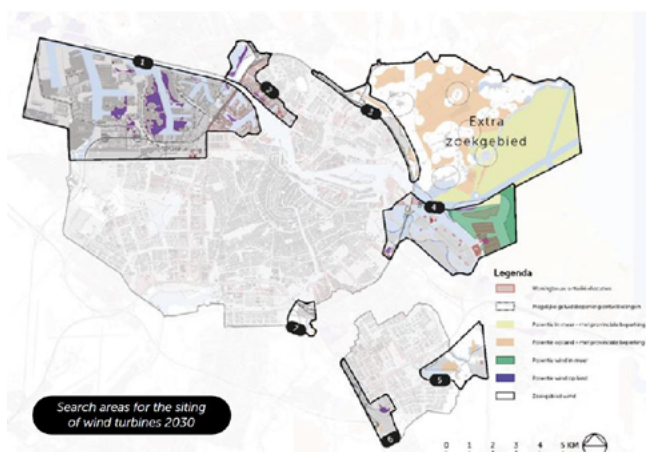
By adopting these practices, you not only improve your district's energy performance but also elevate community awareness and involvement. Together, we can create sustainable, resilient urban environments for future generations.





Local Authorities' Policies to Support Positive Energy Districts

Local authorities play a crucial role in facilitating the transition to Positive Energy Districts (PEDs) through effective policies and supportive measures. Here are examples of inspiring strategies that can drive your district's energy future:



- Sustainability Strategies:** Like Regia, aim for a resilient, inclusive city through urban regeneration and green initiatives.
- Maximizing Solar Energy:** Amsterdam has set ambitious goals for solar installation on roofs, highlighting both the technical feasibility and profitability of such investments.
- Energy Efficiency Guidelines:** Groschnau aims for energy self-sufficiency by 2030, showcasing the value of clear targets and community involvement for better energy management.
- Incentives for Electric Vehicles:** Policies like tax exemptions for electric vehicles encourage broader adoption while reducing emissions.
- Energy Communities:** Foster renewable energy communities that allow participation for those without suitable rooftops through cooperative investments.
- Public Education and Support Systems:** Initiatives providing tailored energy advice and awareness programs can empower residents to make sustainable choices.
- Regional Energy Plans:** Comprehensive plans that address environmental and energy challenges can guide municipalities towards cohesive and effective action.



By implementing these policies, local authorities not only facilitate the shift to PEDs but also inspire communities to take active roles in energy transition. Together, these efforts pave the way for sustainable urban living and a cleaner, greener future.

Structured Project Management for Your PED



After establishing your Positive Energy District (PED) strategy, it's essential to create an actionable plan to track project targets effectively. A robust framework will help set clear goals, monitor progress, and motivate stakeholders as you navigate the complexities of your PED project.

Creating a Target Action Plan

This chapter outlines key strategies for establishing a structured approach, leveraging insights from the SIMPLY POSITIVE project's D5.1 Target Action Plan to guide municipalities and developers towards successful PED implementation aligned with Sustainable Development Goals and climate neutrality objectives.

- 1. Setting SMART Objectives:** Start with SMART – Specific, Measurable, Achievable, Relevant, and Time-bound – objectives. Clearly define actionable goals, like reducing energy consumption by 20% within two years. Use quantifiable indicators to monitor progress and align with local energy policies.
- 2. Monitoring Progress and Visualizing Success:** Continuous monitoring with clear data collection and visualization is crucial. Implement indicator-based monitoring to track environmental, social, and economic metrics. Interactive dashboards can help present real-time progress, celebrate achievements, and identify areas needing attention.
- 3. Engaging Stakeholders:** The success of your PED hinges on collaboration among diverse stakeholders:
 - ▶ **Municipal Authorities:** Provide oversight and secure funding.
 - ▶ **Community Members:** Foster ownership through participatory planning and public consultations.
 - ▶ **Energy Sector Experts:** Design energy management systems.
 - ▶ **Businesses:** Offer innovative solutions and investment capital.

Maintaining motivation is key – ensure regular communication, recognize contributions, and provide training to enhance stakeholder engagement.



- 4. Building a Collaborative Framework:** Establish governance structures like steering committees for coordinated actions, and formalize relationships through Memoranda of Understanding. Regular meetings and workshops can promote ongoing dialogue and collaboration.
- 5. Ensuring Flexibility:** Your framework should be adaptable to changing circumstances. Allow for flexible planning and scalability, encouraging replication in other districts. Employ continuous improvement mechanisms, using feedback to refine strategies and enhance development effectiveness.

By following these structured approaches, you can navigate your PED project confidently, ensuring successful planning, execution, and sustainable outcomes that benefit the entire community.



" The concept of Positive Energy Districts provides powerful tools for cities and communities to tackle the energy transition in a joint localized ambition. The Simply Positive booklet provides a great practical guideline for stakeholders engaged in the journey towards a more resilient and green energy system and helps to mainstream PEDs as a local action contributing to wider transformation processes."

Christoph Gollner,
Coordinator Positive Energy Districts
Transition Pathway, Driving Urban
Transitions Partnership
FFG Austria



" A Positive Energy District can transform a city into a healthier and more sustainable urban ecosystem, reducing carbon emissions, promoting collaboration between communities and driving economic innovation. It's more than green energy – it's about building a future where cities they become models of balance between people and the environment.

PEDs can attract investment, innovation and talent, strengthening cities as leaders of the energy transition and as attractive places to live and work. "

Oana Borza,
General Manager, Local Development
Agency Reșita, Romania



"I want us to create vibrant neighborhoods that conserve resources, improve quality of life, and make our children the proud heirs of a better future – be part of it!"

Martin Bruckner,
Mayor of Großschönau

Further reading links

<https://jpi-urbaneurope.eu/>

<https://dutpartnership.eu/>

<https://mission-innovation.net/>



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