

Summary of Agile Pilot

Company name	EnerCo Solutions, s.r.o.
Company location	Prague
Domain	Energy efficiency
Municipality	Bystřice u Benešova
Project period	1 July 2025 – 31 December 2025
Solution	<p>The pilot focused on the development and validation of the EnerCA digital platform, designed for analysis, modelling and optimization of local energy systems and energy communities.</p> <p>The solution enables municipalities to create a virtual energy twin of their local energy infrastructure and simulate different development scenarios for renewable energy production, electricity sharing and energy storage.</p> <p>Key functionalities include:</p> <ul style="list-style-type: none"> ● modelling of local electricity production and consumption ● simulation of renewable energy deployment scenarios ● evaluation of energy sharing schemes within communities ● economic assessment of proposed energy configurations ● data-based support for strategic municipal energy planning <p>The pilot tested the platform using real operational energy data from the municipality of Bystřice u Benešova, enabling validation of the system in real municipal conditions.</p>
Stakeholders	<ul style="list-style-type: none"> ● EnerCo Solutions, s.r.o. ● City of Bystřice u Benešova ● Municipal administration users responsible for energy management <p>The municipality acted as the pilot user and provided operational data for modelling and testing the digital platform.</p>
Lessons learned	<ul style="list-style-type: none"> ● Clear interpretation of complex energy data is the key value for municipalities. Cities need tools that transform technical energy data into understandable decision-support outputs. ● Data availability remains a major barrier. Many municipalities lack access to structured and high-quality energy data required for advanced energy modelling. ● Municipal energy management requires long-term digital tools rather than one-time analyses. The real value of the solution lies in continuous work with the digital twin of the local energy system. ● Successful implementation requires methodological support for municipal users. Even well-designed tools require guidance and training for effective adoption.

	<ul style="list-style-type: none"> ● Agile piloting enabled testing in real municipal conditions, allowing identification of technical, data and organizational challenges. ● Administrative processes in agile pilots could be simplified. Clearer guidance, standardized documentation templates and more predictable communication would reduce the administrative burden for small technology providers.
KPI 1 Number of entries and exits	<p>Potential increase of local renewable electricity consumption and reduction of grid dependency. The pilot demonstrated that the EnerCA platform can identify significant potential for increasing local renewable electricity production.</p> <p>Key results:</p> <ul style="list-style-type: none"> ● potential increase of local renewable electricity production: 135–163 MWh per year ● estimated reduction of electricity consumption from the grid: 24.5–29.6% ● identification of additional capacity for energy sharing within a local energy community <p>These results confirm the ability of the platform to support strategic planning of local renewable energy systems.</p>
KPI 2 Number of working meetings with city representatives	<p>Economic viability of the proposed energy-sharing system</p> <p>Economic modelling of proposed energy configurations demonstrated positive investment parameters.</p> <p>Results:</p> <p>Scenario 1 – Photovoltaic system</p> <ul style="list-style-type: none"> ● installed capacity: 205 kWp ● investment cost: 4.5 million CZK ● Net Present Value (NPV): 6.7 million CZK ● Internal Rate of Return (IRR): 12.4% <p>Scenario 2 – Photovoltaic system with battery storage</p> <ul style="list-style-type: none"> ● battery capacity: 169 kWh ● investment cost: 5.86 million CZK ● Net Present Value (NPV): 7.2 million CZK ● Internal Rate of Return (IRR): 10.49% <p>The results confirmed that the platform can provide economically consistent decision-support analyses for municipal investments in local energy systems.</p>
KPI 3 Technical Feasibility	<p>User experience of municipal users</p> <p>User experience was evaluated through qualitative interviews and a survey using a five-point Likert scale (5 respondents).</p> <p>Average scores:</p> <ul style="list-style-type: none"> ● clarity of the user interface: 4.6 / 5 ● intuitiveness of use: 4.4 / 5 ● clarity of data outputs: 4.4 / 5 ● understanding of advanced functions: 3.8 / 5 ● overall usefulness for decision-making: 4.6 / 5 <p>The evaluation confirmed that the platform is usable even for municipal users without deep technical expertise, although advanced functions may require additional guidance.</p>

<p>Evaluation of the business model focusing on its viability and potential for growth</p>	<p>Initial business model Before the pilot, EnerCA was conceived primarily as a software product providing advanced modelling and optimization tools for municipal energy systems.</p> <p>Strengths validated by the pilot</p> <ul style="list-style-type: none"> ● clear demand for digital tools supporting municipal energy planning ● strong value in transforming complex energy data into decision-support outputs ● integration of technical, economic and operational analyses within one platform ● high usability for public-sector users <p>Identified barriers</p> <ul style="list-style-type: none"> ● limited availability and quality of energy data in municipalities ● limited personnel capacity of municipalities for long-term energy management ● need for continuous platform development due to evolving legislation and technology <p>Adjustments to the business model The pilot led to a strategic shift from a one-time software sale to a long-term service platform model combining:</p> <ul style="list-style-type: none"> ● platform licensing ● continuous model updates ● methodological support for municipalities ● integration with external partners across the energy ecosystem <p>This approach supports scalability and long-term value creation.</p>
<p>Impacts</p>	<p>Impact on the municipality</p> <ul style="list-style-type: none"> ● access to structured data for strategic energy planning ● identification of renewable energy potential and investment scenarios ● support for the creation of a municipal energy community ● improved efficiency in energy management decision-making <p>Impact on EnerCo Solutions</p> <ul style="list-style-type: none"> ● validation of the EnerCA platform in real municipal conditions ● identification of technical and data limitations ● refinement of the long-term platform strategy ● reduced business risk through real-world testing of the product
<p>Suggestions for future actions, especially focusing on sustainability and replication</p>	<ul style="list-style-type: none"> ● expand implementation of the EnerCA platform to additional municipalities ● improve availability and standardization of municipal energy data ● strengthen training and methodological support for municipal users ● build partnerships across the energy ecosystem (technology providers, consultants, implementation partners) ● continue development of the digital energy twin concept for long-term municipal energy management
<p>Next steps</p>	<p>Following completion of the pilot, the company plans to:</p> <ul style="list-style-type: none"> ● further develop EnerCA as a long-term digital platform for municipal energy management ● focus primarily on the Czech municipal market in the short term ● explore future expansion to neighbouring markets (e.g. Slovakia, Poland) ● participate in sectoral conferences such as URBIS 2026

	<ul style="list-style-type: none"> • secure additional funding for platform development through investors and innovation programs
Provider's Reflection	<p>The pilot demonstrated that the complexity of municipal energy systems is significantly higher than initially anticipated. The final platform architecture evolved gradually during the pilot based on real user needs and available data.</p> <p>Participation in the PilotInnCities program allowed the company to validate the solution in real conditions, identify technical and organizational challenges and accelerate the transition of EnerCA from prototype to a stable platform ready for broader deployment.</p> <p>The agile pilot model proved valuable, although administrative processes could be simplified and better structured to reduce the burden on small technology providers.</p>
Municipality's Reflection	<p>The City of Bystřice u Benešova evaluated the pilot cooperation very positively and considers the EnerCA platform a valuable tool for strategic energy management.</p> <p>The municipality highlighted:</p> <ul style="list-style-type: none"> • intuitive and clear user interface • practical value of outputs for planning local energy development • time savings for municipal staff • potential use of the platform for establishing and operating a municipal energy community <p>The municipality expressed interest in continuing to use the platform on a commercial basis after the pilot.</p>
Expert's Reflection	<ul style="list-style-type: none"> • The agile pilot successfully accelerated the development of the EnerCA platform and improved its alignment with the real operational needs of municipalities through continuous testing, stakeholder feedback, and iterative refinement. • One of the key outcomes of the pilot was the transition from a one-time software licensing model to a long-term strategic partnership approach, emphasizing continuous platform development, regular updates, and ongoing user support. • The expert assessed the project results as positive and realistic overall, although the exact values generated by the platform could not be independently verified due to the proprietary nature of the underlying models and assumptions. Nevertheless, the reported outcomes were considered achievable according to industry good practice. • The pilot confirmed that the platform effectively responds to current trends and needs in municipal and community energy management by providing decision-makers with data-driven insights for strategic planning and investment decisions. • The expert highlighted that the primary value of the solution lies in the consolidation, analysis, and clear visualization of complex energy data, enabling municipalities to better plan future investments and support the development of local energy communities.