Pilot Case Factsheet — Embedding EE1st in SECAPs: second phase — Italy

Authors: Maurizio Matera, Patrizia Pistochini, Fabio Cignini, Maria Salvato, Veronica Tommasetti

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Background and objectives

The second phase of the Italian ENEFIRST Plus pilot case investigates how to make the Energy Efficiency First (EE1st) principle operational in local energy planning, with a specific focus on Sustainable Energy and Climate Action Plans (SECAPs). Building on the first phase[1], which assessed SECAP alignment with EE1st through a multidimensional approach, this second phase focuses on the quality of individual actions, municipal decision-making processes and the organisational conditions required to **move from planning to implementation**.

The reference framework includes Directive (EU) 2023/1791, which gives legal standing to EE1st, European guidance for its implementation and the 2025 JRC guidelines for SECAPs. Within this framework, energy efficiency and demand-side resources should be considered and assessed fairly against supply-side options, taking into account costs, wider benefits and long-term impacts.

The operational objective is to define criteria that **help municipalities select and describe SECAP actions** that are implementable, verifiable and consistent with EE1st. The pilot considers demand-side measures, including building renovation, efficient lighting, sustainable mobility and utility management, alongside supply-side options such as renewable generation and energy infrastructure. Priority is given to solutions that reduce energy needs before additional generation or infrastructure capacity is considered.

Methodology

The second phase combined methodological analysis, application to real cases and peer learning. ENEA developed an approach to translate EE1st into observable criteria for SECAP actions. The analysis covers five dimensions: energy, financial, regulatory, awareness and social, with specific attention to energy poverty.

The work was organised in four steps:

(1) operationalising EE1st through dimensions, keywords and indicators;
(2) testing the methodology on the SEAPs/SECAPs of Naples, Rome and Enna;
(3) defining good-practice criteria: specificity, feasibility, consistency with EE1st and measurability;
(4) discussing findings with stakeholders during the in-person **peer-learning session** held in Palermo on 13 May 2026.

Participants included ENEA experts, professionals involved in SECAP updates and practitioners working on renewable energy communities. The discussion addressed data retrieval, public utility management, coordination among municipal departments, available skills and the use of standardised action sheets. The assessment was mainly qualitative and organisational, complemented by quantitative indicators for energy savings, emission reductions, costs, benefits, beneficiaries and implementation timelines.

[1] See the factsheet of the first phase here: https://ee1st.eu/resources/embedding-the-ee1st-principle-into-secaps-findings-from-the-enefirst-plus-italian-pilot-case/

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Main results

Applying the methodology to the three cities / case studies confirmed a strong affinity between the SECAP structure and EE1st. The energy, regulatory, awareness and financial dimensions can be identified and measured, while the integration of the social dimension distinguishes more mature plans. The financial dimension is cross-cutting and should accompany every action through cost estimates, identified funding and a comparison of costs and benefits.

The work produced a **practical framework for identifying a good SECAP action**. An action should be specific, define responsibilities and governance arrangements, be feasible in terms of financial and human resources, be consistent with giving priority to demand reduction, and include impact and progress indicators. Where possible, benefits should be quantified, including energy savings, avoided emissions, number of beneficiaries, social and environmental co-benefits, timing, barriers and risks.

Peer learning nevertheless identified a fundamental preliminary barrier: **many municipalities lack reliable, up-to-date and organised energy data**. Information on electricity and gas delivery points, locations, uses, contracted capacity, consumption, costs, tariffs and connected loads is often fragmented across departments or held by external service providers. This diverts resources towards data searches, delays SECAP updates and hampers monitoring.

Gaps in permanent expertise and clear accountability also emerged. Examples of installed systems that were never connected, or systems left out of operation after a fault, show that **technology alone does not guarantee results**. Administrative capacity and continuous management are essential to turn investments into actual savings.

The Naples case demonstrates how improving the energy performance of municipal public buildings can generate **benefits that go beyond energy savings alone**. The action combines energy renovation measures, climate adaptation interventions, and the potential development of energy community schemes, while also contributing to the fight against energy poverty. In this context, reducing energy vulnerability emerges as a significant social co-benefit, highlighting the importance of assessing SECAP actions through a **multidimensional perspective** that considers not only energy and economic impacts, but also social outcomes.

Where and how implementing EE1st makes a difference

EE1st makes a difference **before investments are selected**. A single municipal energy database makes actual demand visible, helps identify unused delivery points or oversized contracts, and enables management and efficiency measures to be assessed before generation or infrastructure is expanded. In this sense, the first form of efficiency is organisational.

The principle also improves the **transparency of decision making**. Requiring each action to report its rationale, alternatives, costs, benefits, indicators and responsibilities makes the priority given to efficiency verifiable. A standard action sheet supports municipalities with limited technical capacity and facilitates comparison among actions, access to funding and periodic monitoring.

The pilot also shows that EE1st should not be applied as an energy-only criterion. Robust decisions integrate economic feasibility, removal of barriers, user engagement and protection of vulnerable groups. **Multi-level governance** remains crucial: regions, provinces, energy agencies, network operators and institutional networks can provide data, technical assistance and continuity, especially for small municipalities.

Operational recommendations:

- establish a single utility management office or appoint a permanent technical-administrative energy manager;
- adopt a common minimum database for delivery points, consumption, expenditure, tariffs, capacity and assets;
- use SECAP action sheets including indicators, timelines, funding coverage and cost-benefit analysis;
- design monitoring from the planning stage, with regular feedback and plan-revision cycles.

Stakeholders' experience: Palermo peer-learning session

The discussion held on 13 May 2026 provided a practical account of the barriers faced by municipalities. Experience from updating the SECAP of Palermo showed that a substantial share of the work is absorbed by retrieving information scattered across departments, stored in non-machine-readable formats or linked to staff members who are difficult to identify.

Stakeholders shared a common conclusion: before launching major projects, municipalities need orderly data, clear responsibilities and permanent expertise. A digital utility management system, supported by standard procedures, would help reduce waste, correct contractual anomalies, support SECAP preparation and turn monitoring from an occasional compliance exercise into a routine energy-governance practice.

About Enefirst Plus

Enefirst Plus is a 3-year project (November 2023 – October 2026) co-funded by the EU LIFE programme. Building on the previous Horizon 2020 Enefirst project, the aim of Enefirst Plus is to provide key stakeholders in all Member States with the technical support needed to effectively implement Energy Efficiency First across various sectors, particularly focusing on key decision-making processes.

Energy Efficiency First (EE1st) is an overarching principle for planning, policies and major investments having an impact on energy consumption. EE1st is about considering **energy efficiency and demand-response as energy resources** in the energy system, just as supply-side resources (e.g. generation capacities, network infrastructures). Implementing EE1st means that in planning exercises, policy design or decision-making about investments, the options considered include energy efficiency and demand-response, and that these options are compared with supply-side options on a **fair basis**, considering **multiple impacts and a long-term perspective**.

Implementing EE1st is easier said than done. Therefore, the general approach of Enefirst Plus is to complement existing resources to **plug EE1st in the decision making** for investments in energy infrastructure, energy planning, and designing incentives and policies.

Enefirst Plus is testing this approach in four countries (Croatia, Italy, Greece and Poland) and scrutinize the implementation of EE1st with **pilot cases** in each country. Two cycles, with four pilot cases each, will provide a diversity of **real-life examples** addressing typical situations where EE1st should be implemented. The new resources and pilot cases produced by the project, as well as experiences from other countries, serve as foundational elements for capacity building and experience sharing activities, and for the development of a community of practice.

Enefirst Plus' partners

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RAP REGULATORY ASSISTANCE PROJECT

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