



Agri-food Efficiency with New Energy Audit Measures

***Enhancing Energy Efficiency and Industrial Decarbonisation in the agri-food sector***

***Policy Brief – Recommendations from the AENEAM Project***



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# 1. Executive summary

Energy audits, electrification, and industrial energy cooperation are key pillars of the EU's transition to a low-carbon economy. However, major challenges persist, particularly for SMEs, including fragmented regulations, limited financing access, low implementation rates of audit recommendations, and insufficient infrastructure.

Based on AENEAM partner experience across several Member States, this brief proposes a set of strategic, **EU-level recommendations to strengthen the effectiveness of the Energy Efficiency Directive (EED), accelerate implementation, and support industrial decarbonisation**, notably in the **agri-food sector**.

## 2. Context and Challenge

Despite strong EU policy frameworks, the uptake and impact of energy efficiency measures remain uneven across Member States. **SMEs—especially in the agri-food sector—face structural barriers in accessing finance, technology, data, and support systems.**

At the same time, electrification and decentralised energy models require significant regulatory alignment, infrastructure investment, and coordination to unlock their full potential.

## 3. Key Policy Recommendations

AENEAM partners have developed 10 policy recommendations, structured around three strategic priorities:

- **Improving Energy Audit Quality & Implementation** – enhancing the quality, consistency, and uptake of energy audits and their recommendations;
- **Accelerating Industrial Electrification and System Readiness** – supporting the transition away from fossil fuels through electrification, grid development, storage, and flexibility solutions;
- **Scaling Up Energy Communities and Collective Energy Solutions** – enabling greater collaboration between companies through energy sharing, collective self-consumption, and industrial energy communities.

### Improving Energy Audit Quality & implementation

#### 3.1. Strengthen Energy Audit Effectiveness (EED Article 11)

##### **Problem:**

Energy audits lack consistency and often fail to translate into concrete action.

##### **Recommendations:**

- Standardise audit methodologies and digital reporting at EU level
- Introduce EU-wide benchmarks and sector-specific guidelines
- Establish quality control and monitoring systems, including common EU-wide indicators

- Establish a quality assurance and review mechanism for energy audits to ensure consistent application of audit standards, identify methodological deviations, enhance the reliability and relevance of recommendations, and strengthen trust among companies and competent authorities.
- Simplified tools and self-assessment instruments for SMEs and micro-enterprises
- Require post-audit reporting on implementation, outcomes and impacts
- Promote a strategic approach to energy audits by ensuring they assess the company's overall energy strategy and long-term decarbonisation objectives, enabling the prioritisation of coherent investment pathways rather than isolated energy efficiency measures.
- Enhance the investment readiness of energy audits by mandating the inclusion of standardised financial indicators and an assessment of suitable financing options for the recommended measures, ensuring that companies can effectively evaluate, prioritise, and implement energy efficiency investments.

### **3.2. Close the Implementation Gap**

#### **Problem:**

Many audit recommendations are not implemented due to financial and procedural barriers.

#### **Recommendations:**

- Link certified audits to fast-track access to public funding
- Facilitate access to financing for SMEs by combining targeted incentives with administrative simplification
- Introduce continuous micro-incentives (vouchers, small grants), adapted to SMEs
- Provide tax incentives and simplified financing tools for energy efficiency investments
- Offer post-audit technical support for implementation, for project design, procurement, and implementation
- Support uptake of digital energy management technologies
- Strengthen the financial expertise of energy auditors and introduce a harmonised methodology for evaluating energy efficiency investments, using standard financial indicators (e.g. NPV, IRR, payback period, life-cycle cost analysis) to ensure robust and comparable project assessments.
- Establish dedicated funding mechanisms for energy monitoring and management systems, recognising that many of their benefits arise from improved energy governance, operational optimisation, and behavioural change, which are often difficult to quantify in conventional business cases.
- Revise funding and cost-benefit assessment criteria for energy management investments to better reflect their long-term strategic benefits. Evaluation frameworks should recognize that the adoption of ISO 50001, monitoring systems, and energy management software deliver value beyond directly quantifiable energy savings, such as enhanced energy transparency, stronger operational decision-making, increased resilience, and sustained performance improvement.

### **3.3. Improve Data, Digitalisation and Benchmarking**

#### **Problem:**

Limited access to reliable data and benchmarking reduces effectiveness and engagement.

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**Recommendations:**

- Develop EU-wide anonymised audit databases
- Encourage the systematic publication of anonymised and aggregated energy audit results
- Develop harmonised indicators to assess the impacts of energy audits and implemented measures, and promote the regular dissemination of results to demonstrate their value, support policy evaluation, and drive wider uptake of energy efficiency actions
- Promote standardised digital tools for data collection and monitoring
- Enable secure data sharing frameworks, that guarantee confidentiality while enabling sector-wide learning
- Incentivise the adoption of energy monitoring systems (EMS)
- Introduce preferential co-financing rates for advanced metering and energy monitoring systems in SMEs, recognising their critical role in establishing reliable energy baselines, identifying future energy efficiency opportunities, and enabling data-driven investment and operational decisions.

**3.4. Empower SMEs Through Support and Capacity Building****Problem:**

SMEs face knowledge gaps, resource constraints, and limited access to expertise.

**Recommendations:**

- Establish regional advisory hubs
- Enhance the financial literacy of energy auditors, to improve their ability to support informed business decision-making
- Support sector-specific technical training programmes to strengthen companies' understanding of energy-efficient technologies and solutions
- Foster trust-based collaboration and data sharing
- Raise awareness of energy audits as strategic tools for competitiveness and energy performance, notably in SMEs

**3.5. Facilitate ISO 50 001 Implementation in SMEs****Problem:**

Implementing ISO 50001 requires significant human and financial resources, limiting its uptake among SMEs.

**Recommendations:**

- Develop a simplified and phased ISO 50001 implementation framework tailored to SMEs, reducing administrative burden while preserving the core principles of energy management and continuous improvement.
- Establish dedicated financial support schemes for SMEs implementing ISO 50001 or a recognised simplified energy management system, covering consultancy, training, certification, and monitoring costs.

- Promote step-by-step implementation pathways that enable SMEs to progressively build their energy management system before pursuing full ISO 50001 certification.
- Grant priority access to public funding for certified energy management systems and continuous monitoring platforms, recognising their strategic role in enabling long-term energy performance improvements and informed investment planning beyond directly measurable short-term energy savings.
- Develop EU guidance for the assessment of non-technical energy efficiency measures, including ISO 50001 implementation, employee engagement initiatives, and digital energy management solutions. Evaluation frameworks should move beyond ex-ante energy-saving estimates and incorporate indicators related to continuous improvement, organisational maturity, management practices, and verified post-implementation performance.

## Accelerating Industrial Electrification and System Readiness

### 3.6. Accelerate Electrification and Industrial Decarbonisation

#### **Problem:**

Electrification is constrained by cost, technology limits, and fossil fuel dependence.

#### **Recommendations:**

- Scale up EU funding for electrification technologies
- Support innovation in hard-to-abate sectors
- Promote integrated energy approaches (e.g. waste heat recovery)
- Encourage industrial cooperation and knowledge sharing
- Support R&D activities of new technologies
- Promote the generation of renewable energies, energy storage systems and energy consumption advanced management systems, so that electrification not only meets the energy needs of the industry but also dives its decarbonization

### 3.7. Reinforce Energy Infrastructure and System Integration

#### **Problem:**

Grid limitations and insufficient storage hinder large-scale transition.

#### **Recommendations:**

- Increase investment in electricity grids and interconnections
- Support storage deployment and regulatory frameworks
- Remove regulatory barriers to enable and accelerate collective self-consumption and energy communities
- Strengthen long-term EU grid planning

### 3.8. Enhance Demand Response and Flexibility

#### **Problem:**

SMEs have limited access to flexibility markets and enabling tools which can exacerbate grid instability during periods of high demand.

### **Recommendations:**

- Facilitate SME participation via aggregation models
- Support digitalisation (smart meters, EMS, automation)
- Introduce incentives for flexibility services
- Promote collective approaches (clusters, energy communities)

## **Scaling Up Energy Communities and Collective Energy Solutions**

### **3.9. Simplify and Harmonise Regulatory Frameworks**

#### **Problem:**

Complex and fragmented regulations limit accessibility and slow deployment.

#### **Recommendations:**

- Simplify administrative procedures and reporting obligations, notably for SMEs
- Harmonise EU guidelines and ensure regulatory stability
- Adapt frameworks to SME needs

### **3.10. Scale Up Energy Communities and Collective Models**

#### **Problem:**

Energy communities are underdeveloped due to regulatory complexity and lack of support.

#### **Recommendations:**

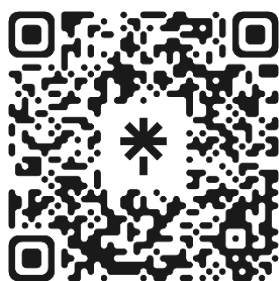
- Harmonise EU rules for energy sharing and collective self-consumption
- Support joint investments in renewables and storage
- Invest in local grids enabling decentralised systems
- Promote industrial energy communities and SME aggregation
- Support the role of Industrial Energy Community Managers to facilitate cooperation and translate technical and financial solutions into operational solutions

## **4. Conclusion**

To meet EU climate and energy objectives, policy must move beyond frameworks toward **implementation, simplification, and scaling solutions**.

A coordinated approach combining **harmonisation, targeted incentives, infrastructure investment, and SME-focused support** will be essential to accelerate the transition and ensure competitiveness across European agri-food industry.

## For more information about the project:



[@AENEAM-project](#)



[pole-innovalliance.com/en/aeneam-about-project](http://pole-innovalliance.com/en/aeneam-about-project)



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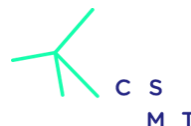
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