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Power of Less: The Time for Energy Efficiency is Now

How Energy Efficiency Drives Business Resilience in the European New Energy Economy.

ABSTRACT

In the new energy economy, the strategic reduction of energy consumption has emerged as a powerful driver of business transformation and resilience. As the European Union embraces this paradigm shift, organizations are discovering that efficiency isn't just about using less – it's about achieving more through strategic energy choices on the company level.

The role of energy efficiency is evolving beyond conventional metrics to become a key enabler of business transformation. Recent analysis reveals that organizations implementing comprehensive efficiency programs demonstrated 40% less vulnerability to energy price fluctuations during market volatility. This evolution is supported by increasingly sophisticated financing mechanisms that are tailor-made to bridge the financing gap between institutional investors and SMEs as well as corporates with energy efficiency projects needing financing. This white paper examines how the strategic "power of less" drives business resilience and competitiveness in the post-2022 European context.

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Introduction

The 2022 energy crisis transformed energy efficiency from a cost-cutting exercise into a strategic driver of business resilience.

The European Union stands at the precipice of an energy revolution, where strategic efficiency is redefining the paradigm of business resilience. In the aftermath of the 2022 energy crisis, organizations are recognizing that reducing energy consumption is not merely a cost-cutting measure but a powerful catalyst for transformation in a volatile market, and at it one that ought to be addressed not exclusively via supply-side solutions but increasingly via demand-side investments.

The potential impact of this shift is substantial. The European Commission estimates that comprehensive efficiency initiatives could reduce EU gas dependency by about 100 billion cubic meters annually by 2030.[1] This is approx. 30% of the gas consumed in the EU in 2022.[2] Moreover, by leveraging existing technologies, these measures could achieve a 40% reduction in emissions.[3] However, the benefits extend beyond resource conservation and environmental sustainability. Recent studies demonstrate that companies with robust efficiency programs exhibited 40% less vulnerability to energy price fluctuations during market disruptions,[4] underscoring the critical role of efficiency in building business resilience.

This transformation is being facilitated by new financing structures that connect institutional capital with smaller-scale energy efficiency projects. These mechanisms are designed to aggregate and standardize investments in demand-side efficiency measures, making previously unbankable projects accessible to institutional investors while providing SMEs with capital sources that were traditionally unavailable due to scale constraints and transaction cost barriers.

This white paper explores the transformative power of strategic energy efficiency in driving business resilience and value creation within the post-2022 European context – what is, in short, encompassed in the term power of less.

The Power Paradox: Energy Efficiency as the First Fuel

Energy-efficient companies proved more resilient to energy market volatility.

The interplay between energy efficiency and business resilience represents a transformative force in modern energy management, where the strategic reduction in energy consumption creates cascading advantages across organizations. Thomas and Rosenow's comprehensive analysis of European energy consumption patterns reveals a complex relationship between efficiency measures and business resilience. Their research, examining data from a large, representative sample of European companies, demonstrates that strategic efficiency improvements delivered not only direct cost savings but also enhanced operational flexibility and market competitiveness.[5] Particularly significant was their finding that companies with advanced energy efficiency programs were able to maintain productivity levels

[1] European Commission, 2023
[2] Statista, 2024
[3] Andrei, 2023
[4] Reuter et al., 2023
[5] Thomas and Rosenow, 2023

during energy price spikes, while their less efficient competitors faced operational disruptions. And as such truly depicts the power of less.

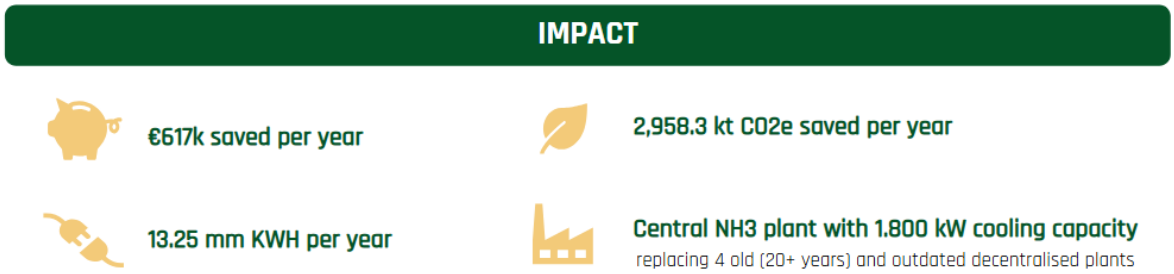
The power of efficiency is fundamentally reshaping our understanding of energy systems, as Liebreich demonstrates in his analysis of what he terms "The Primary Energy Fallacy". The research reveals how efficiency improvements can provide the same or better services while dramatically reducing primary energy demand. This transformation extends beyond simple cost reduction, creating multiplier effects throughout organizations. For instance, when examining heating systems, upgrading from conventional systems to heat pumps can reduce primary energy demand by 78% while delivering the same comfort levels.[6] Another fitting example of the power of less is lighting, so prevalent across business spaces of all kinds. Replacing incandescent lightbulb fixtures with LED lights can lead to up to 80% of energy savings.[7] Both of these highlights how the demand-side needs of companies have the potential to contribute to the power of less.

Driving Change: The Energy as a Service Business Model

> The economic evidence is clear: energy efficiency represents a tremendous value-creation opportunity.

The paradox of energy efficiency lies in the disconnect between its clear economic benefits and its limited adoption by businesses. Energy efficiency initiatives can significantly improve both the productivity and profitability of companies, with studies showing that companies implementing comprehensive efficiency programs demonstrate 40% less vulnerability to energy price fluctuations.[8] These findings are particularly relevant in the EU context, where analysis shows that efficiency measures could reduce gas dependency by 100 billion cubic meters annually by 2030 while delivering substantial cost savings to businesses.[9]

The economic evidence for the power of less is very fittingly depicted by projects developed and implemented by the German Energy Service Company ("ESCO") Encore Efficiency GmbH ("Encore"), which implemented 27 energy efficiency projects across multiple processing sites of a multinational dairy producer. This initiative, supported by specialist funding arranged by Solas Capital, achieved remarkable results without requiring upfront capital investment from the dairy producer:



[6] Liebreich, 2024
[7] Mahlia et al, 2014
[8] Caragliu, 2021
[9] European Commission, 2023

However, despite these demonstrated benefits of power of less, many businesses, particularly SMEs - struggle to implement demand-side efficiency measures due to high upfront capital requirements.

Energy-as-a-Service business models ("EaaS") remove this upfront capital barrier. As included in the above case study, EaaS illustrates how financial barriers to adoption can be overcome, allowing companies to realize immediate economic benefits while advancing their sustainability goals. The role of the EaaS model, along with the innovative financing mechanisms, becomes crucial in bridging this gap.

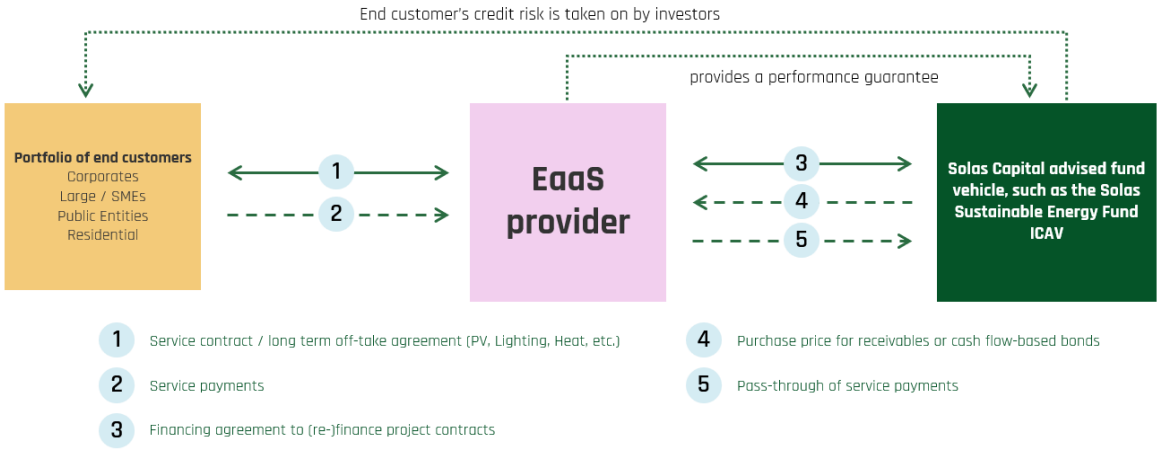


Figure 1: Energy as a Service Explanatory Graph

Analysis of industrial facilities shows that while demand-side energy efficiency projects typically deliver significant cost reductions and operational benefits, the substantial upfront capital requirements often prevent implementation, particularly for SMEs.[10] Financial institutions like Solas Capital are addressing this market inefficiency by developing new financing products that bridge the gap between institutional investors seeking stable, risk-adjusted returns and SMEs needing capital for their efficiency projects. By structuring investments to align the timing of energy cost savings with financing payments, these mechanisms enable businesses to implement efficiency measures without straining their balance sheets.

The economic evidence is clear: energy efficiency represents a tremendous value creation opportunity, with research indicating that EU efficiency initiatives enable a 40% reduction in greenhouse gas emissions using existing technologies alone.[11] What's missing, for the power of less to reach as many EU businesses as possible, is not the economic rationale, but the financial mechanisms to unlock these investments at scale. As demonstrated by the Encore case study, addressing this financing gap through innovative mechanisms, such as EaaS, and policy support is crucial for accelerating the transition to a more efficient, resilient energy system.

[10] Cagno et al., 2014
[11] Andrei, 2023

Building Resilience: Security Through Efficiency

Energy efficiency created operational resilience while maintaining business performance.

For European businesses, energy efficiency isn't just an economic and environmental consideration – it's a critical shield against market volatility and supply chain disruptions. The dramatic energy price spikes of 2022 laid bare a stark reality: companies with robust efficiency programs significantly outperformed their peers, demonstrating 40% less vulnerability to price fluctuations while maintaining operational stability.[12] This resilience advantage is particularly crucial for SMEs, which often lack the financial buffers of larger corporations to weather energy market shocks.

The business case for efficiency as a security measure is compelling and data driven. . European companies have already achieved remarkable results: recent data shows a 20% reduction in natural gas consumption in 2023 compared to pre-crisis levels,[13] while maintaining, and in many cases improving, their competitive position. More significantly, this reduced consumption has been achieved while businesses continue to grow – electricity consumption reached its lowest level in five years (not accounting for the outlier that is 2020), despite expanded economic activity.[14] This decoupling of energy demand from business growth demonstrates how efficiency measures can create operational resilience without compromising performance.

For Commercial and Industrial (C&I) players, the security benefits of energy efficiency extend far beyond cost savings. Advanced energy management systems are:

- proving to be transformative,
- enabling predictive maintenance,
- extending equipment life,
- and providing operational flexibility that was previously unattainable.

For SMEs, the implications are equally significant – improved efficiency means:

- reduced exposure to energy price volatility,
- better cash flow management,
- and enhanced competitiveness.

The evidence is clear: businesses that treat energy efficiency as a strategic security asset rather than just a cost-saving measure are building lasting resilience. These "resilience multipliers," as termed by Reid,[15] create cascading benefits throughout organizations, from improved supply chain security to strengthened market positioning.

For European businesses, the message is unequivocal: energy efficiency is no longer optional for those seeking long-term security and competitiveness. As the EU moves toward its 2030 targets, companies across the bloc should strive toward achieving the power of less. It can be reasonably inferred that

[12] Reuter et al., 2023
[13] European Commission, 2024
[14] Eurostat, 2025
[15] Reid, 2024

businesses that embrace comprehensive demand-side efficiency programs will be best positioned to thrive in an increasingly complex energy landscape. Since energy efficiency investments deliver:

- environmental benefits,
- tangible business advantages in terms of operational resilience,
- market competitiveness,
- and long-term security.

However, despite the data speaking for itself, we cannot discard one factor – the upfront cost of such demand-side energy efficiency measures, which, especially for SMEs, is oftentimes too much of a burden to pursue the above-described path of energy security. This is where Energy as a Service business models are ideally placed to overcome this barrier, making the link between SME energy efficiency project holders and institutional investors' funds.

Regulatory Imperatives: Policy as a Market Creator for the Power of Less

> Meeting EPBD targets required €297 billion annually with a €149 billion financing.

The achievement of widespread power of less requires more than economic incentives and innovative financing—it demands regulatory frameworks that create systematic market demand for efficiency solutions. The European Union has pioneered this approach through four interconnected directives that transform compliance obligations into powerful drivers of energy efficiency investments:

1. the Energy Performance of Buildings Directive ("EPBD"),
2. the Energy Efficiency Directive ("EED"),
3. the EU Taxonomy Regulation ("Taxonomy"),
4. the Corporate Sustainability Reporting Directive ("CSRD").

The **Energy Performance of Buildings Directive** addresses the need to curb 40% of final energy use in the EU that currently originates from buildings. Thus, the EPBD creates unprecedented demand-side pressure through Minimum Energy Performance Standards ("MEPS"), requiring all non-residential buildings to achieve Energy Performance Certificate class F by 2030 and class E by 2033.[16] This potential future regulatory obsolescence of inefficient buildings represents a direct manifestation of the power of less principles—organizations must reduce energy consumption not as an option, but as a prerequisite for continued operation. The directive's impact on market demand for energy efficiency improvements (and financing thereof) is substantial: with 75% of EU building stock currently energy inefficient and annual renovation rates stagnating at just 1%, the EPBD aims to at least double renovation rates by 2030, transforming voluntary efficiency improvements into systematic compliance requirements.[17]

[16] European Commission, 2024
[17] European Commission, 2020

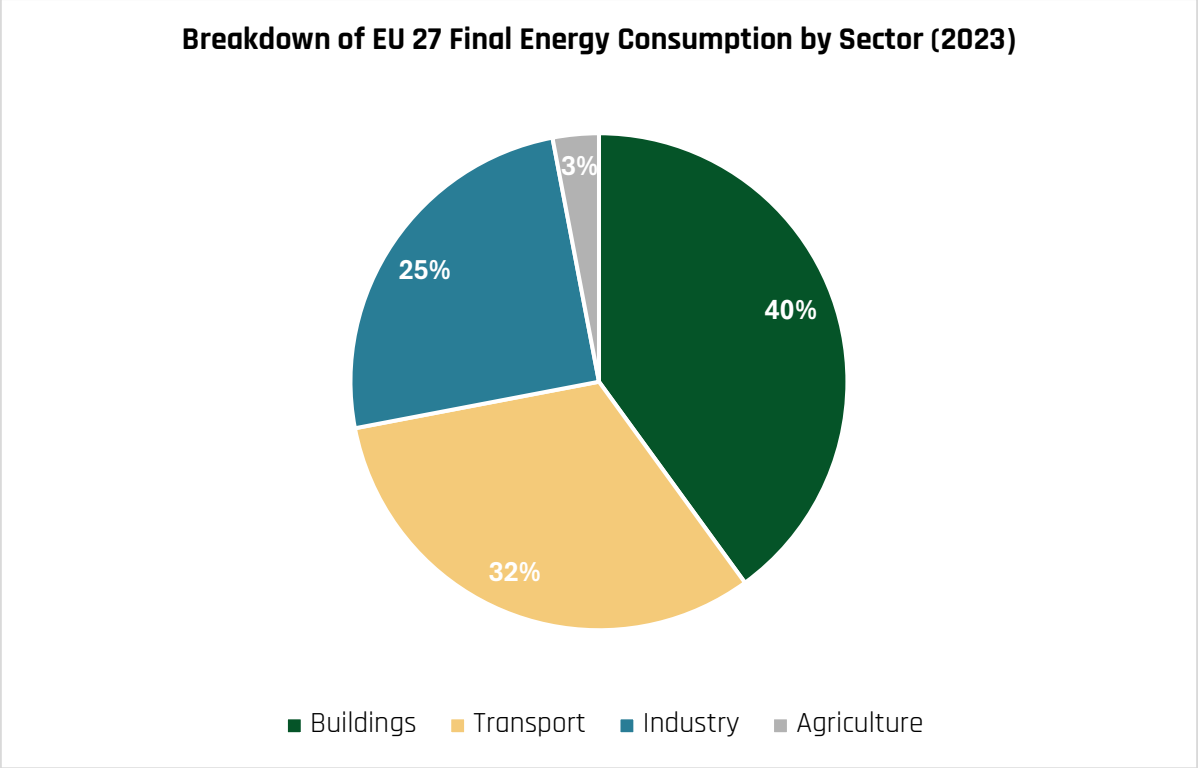


Figure 2: Breakdown of EU27 Final Energy Consumption by Sector Source: Eurostat (2025)

This regulatory transformation creates what economists' term 'mandatory demand' - market demand that exists not through consumer preference but through legal necessity, establishing the predictable project pipelines essential for scaling innovative financing solutions of the demand-side energy efficiency projects. However, an analysis by Brussels-based think-tank, Bruegel, estimates that meeting the EPBD targets requires €297 billion in total annual investments through 2030, with an actual financing gap of €149 billion annually - approximately 0.7% of the EU's GDP.[18] This substantial investment requirement demonstrates how regulatory frameworks transform efficiency from voluntary initiatives into systematic market imperatives, creating bankable project pipelines that enable the deployment of energy efficiency at unprecedented scale. What needs to come hand in hand with these opportunities is the availability of flexible financing, especially for the small and medium-sized energy efficiency project owners.

[18] Sgaravatti, G., et al., 2024

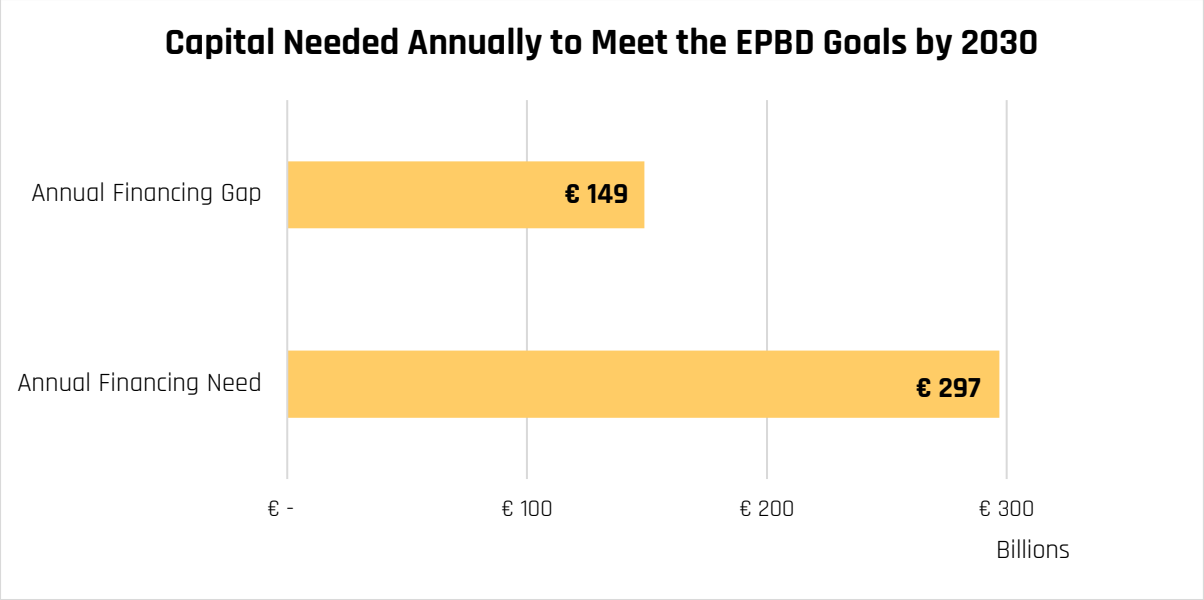


Figure 3: Capital Needed Annually to Meet the EPBD Goals by 2030 Source: Sgaravatti, G., et al. (2024)

Initially adopted in 2012 and then revised in 2023, the **Energy Efficiency Directive** amplifies these market effects through escalating obligations that create sustained demand for professional energy services. The EED establishes mandatory energy audits for large enterprises and escalating annual energy savings requirements—from 0.8% to 1.9% by 2030—creating systematic efficiency imperatives.[19] Analysis of over 400 regulatory compliance audits conducted by Schneider Electric under the EED and its UK equivalent demonstrates the market impact of mandatory frameworks, identifying average energy savings of 20% with 60% of measures delivering payback in under two years.[20] For SMEs, the data from the 2024 Flash Eurobarometer reveals that only 25% of surveyed SMEs have developed formal carbon reduction and net-zero strategies, which include but are not limited to energy efficiency.[21] This highlights that while regulatory frameworks have the potential to accelerate systematic efficiency adoption across SMEs and big industrial players alike, the capital gap that exists and prevents the adoption of the power of less is more prevalent among SMEs.

The **EU Taxonomy Regulation** serves as the critical bridge between regulatory compliance and financial market mechanisms, establishing the technical criteria that determine which economic activities qualify as environmentally sustainable investments.[22] For the buildings sector, the Taxonomy's technical screening criteria directly reinforce EPBD objectives by requiring new buildings to achieve Primary Energy Demand at least 10% lower than national Nearly Zero Energy Building thresholds, while existing buildings must belong to the top 15% of national building stock in terms of operational Primary Energy Demand.[23] This regulatory alignment creates a powerful feedback loop: buildings that fail to meet EPBD efficiency standards increasingly risk exclusion from taxonomy-aligned financing, while properties that exceed efficiency requirements gain preferential access to green capital markets.

[19] European Commission, 2023
[20] Schneider Electric, 2023
[21] European Commission, 2024
[22] European Commission, 2020
[23] European Commission, 2021

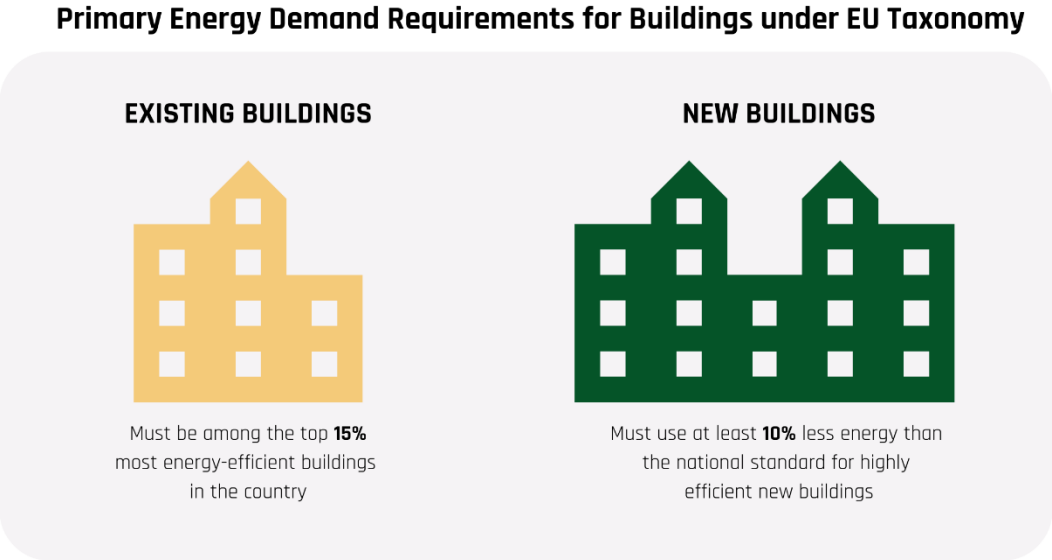


Figure 4: Primary Energy Demand Requirements for Buildings under EU Taxonomy

The financial sector implications are transformative. Under the **EU Taxonomy Regulation** and related sustainable finance disclosure requirements, financial institutions must report the proportion of their lending that qualifies as taxonomy-aligned through the Green Asset Ratio (GAR), creating direct incentives to prioritise energy-efficient properties in mortgage portfolios.

Empirical research demonstrates that this reporting obligation is already driving systematic repricing of mortgage risks: analysis of syndicated loan markets reveals that firms with higher taxonomy-eligible revenue shares receive approximately 5 basis points lower interest rates, even before full implementation.[24] For real estate specifically, this dynamic is creating what economists term 'stranded asset risk' for inefficient buildings, with current average Green Asset Ratio for EU banks standing at only 2.4%, highlighting the substantial portfolio transformation required.[25] This market-driven enforcement mechanism amplifies the EU Taxonomy's regulatory pressure, which itself reinforces EPBD building standards, creating systematic channelling of capital toward efficiency improvements that embody the power of less.

The **Corporate Sustainability Reporting Directive** completes this regulatory ecosystem by mandating detailed sustainability disclosures for 50,000 companies by 2029. Under the European Sustainability Reporting Standards, particularly the climate change standard (ESRS E1), companies must report comprehensive data on their greenhouse gas emissions, energy consumption, and climate targets across their entire value chain.[26] Critically, this includes Scope 3 emissions - the indirect emissions from suppliers, distributors, and product use - which typically represent 70-90% of a company's total carbon footprint.

This creates cascading market pressure where large companies' reporting obligations drive energy efficiency requirements throughout their supply chains, reaching hundreds of thousands of SMEs that serve as suppliers. While European-centric academic research on this topic is sparse, and is expected to pick up once the CSRD reporting cycles are longer, studies from other regions confirm that

[24] Sautner Z., et al, 2025
[25] CRIF, 2024
[26] European Commission, 2022

environmental disclosure significantly improves corporate energy efficiency, particularly for large and growing firms.[27] The power of less thus operates through both direct regulatory requirements and indirect supply chain pressures, as disclosure obligations transform energy efficiency from a voluntary initiative into a business necessity for maintaining access to major corporate customers.

This regulatory quarter – the EPBD, the EED, the Taxonomy, the CSRD - creates self-reinforcing demand-side dynamics that are essential for scaling the power of less across European industries. The integration of regulatory requirements with financing mechanisms exemplifies how policy frameworks enable the power of less at scale. This regulatory-finance nexus transforms compliance obligations into investable opportunities, demonstrating how systematic policy design can overcome traditional market barriers to energy efficiency adoption.

Capital Solutions at Scale: How Institutional Investment Can Unlock the Opportunity

> Europe's €149 billion efficiency gap represented an untapped institutional investment opportunity.

The scale of Europe's energy efficiency investment requirement creates a compelling proposition for institutional investors seeking stable returns with climate impact credentials. However, realising this opportunity requires sophisticated capital solutions that can bridge the fundamental mismatch between institutional investment preferences—large ticket sizes, standardised structures, and predictable cash flows—and the reality of energy efficiency projects, which are typically small-scale, bespoke, and distributed across thousands of SMEs. The average energy efficiency project size of €50'000-€500'000 creates immediate scale challenges for institutions accustomed to deploying €50-100 million per investment.

Aggregation as the Solution Engine

The breakthrough lies in sophisticated aggregation mechanisms that can transform hundreds of small-scale efficiency projects into institutional-grade investment products. Solas Capital's approach demonstrates how this transformation occurs through three critical innovations:

- **Portfolio Construction:** By aggregating hundreds of individual efficiency projects across diverse sectors and geographies, single investment vehicles can achieve ticket sizes required by institutional investors whilst maintaining robust diversification.
- **Standardised Documentation:** Developing template EaaS financing contracts and standardised performance metrics enables rapid project origination and portfolio scaling, reducing transaction costs from prohibitive levels to institutional investment standards.
- **Risk Management:** Geographic and sector diversification across portfolios, combined with credit enhancement mechanisms and performance guarantees from established ESCOs, creates risk profiles comparable to infrastructure debt whilst offering superior returns.

Market Dynamics Favouring Scale

Three converging factors create unprecedented conditions for institutional capital deployment in energy efficiency:

[27] Liu, X., et al., 2023

The regulatory catalyst provided by EPBD, EED, and CSRD creates systematic, predictable demand that enables long-term capital planning. Unlike voluntary efficiency markets, regulatory compliance creates 'must-have' rather than 'nice-to-have' demand, providing the visibility institutional investors require for large-scale capital allocation.

Market maturation in EaaS delivery has produced proven operators like Encore with established track records, standardised processes, and scalable business models. This operational infrastructure enables institutional investors to deploy capital through experienced partners rather than building capabilities internally.

Conclusion: The Time for Energy Efficiency Investment is Now

> The convergence of regulation, technology and market demand created optimal investment conditions.

The convergence of regulatory pressure, proven technology, and urgent market need has created an unprecedented moment for energy efficiency investment. The power of less is no longer an environmental aspiration—it has become an economic imperative backed by EU regulation and driven by business necessity.

For institutional investors, this moment presents a rare combination: a massive, underserved market with predictable cash flows, regulatory tailwinds, and quantifiable impact. The €149 billion annual financing gap represents an investable universe comparable to Europe's entire renewable energy infrastructure market, yet without inherent electricity price risks.

The First-Mover Advantage

Early institutional investors in this space will benefit from:

- Significant illiquidity premium before market saturation compresses yields
- Partnership opportunities with best-in-class ESCOs
- Portfolio positioning ahead of regulatory compliance deadlines that will intensify demand
- Climate investing leadership in a sector delivering measurable decarbonisation at scale

The Scale of Opportunity

The numbers are compelling: 75% of EU buildings require efficiency upgrades,[28] SMEs across Europe need capital for compliance-driven improvements, and EaaS models have proven their ability to deliver positive cash flows from day one. This is not an emerging market—it is an established sector ready for institutional capital at scale.

The Urgency Factor

Regulatory timelines are fixed: EPBD compliance requirements take effect in 2030, CSRD reporting obligations are expanding annually, and EED savings targets escalate through the decade. This regulatory certainty creates investment visibility rarely seen in infrastructure sectors but also compressed timeframes for capital deployment.

[28] European Commission, 2024

The question facing institutional investors is straightforward: will they lead in capturing this opportunity, or will they follow as others establish market dominance? The power of less represents more than an energy strategy—it is the foundation of Europe's next great infrastructure investment theme. The time to invest is now, before the opportunity becomes consensus and the returns become commoditised.

For institutional investors seeking to deploy capital at scale into real economy investments that deliver both financial returns and measurable climate impact, European energy efficiency stands alone as the optimal combination of opportunity size, return predictability, and deployment readiness. The infrastructure of tomorrow is being built today through the strategic reduction of energy consumption. The only question is which investors will power this transformation.

About Sebastian Carneiro

Sebastian Carneiro is the Chief Executive Officer and Co-founder of Solas Capital AG, a specialised investment advisory firm that pioneers financing solutions for decentralised energy efficiency and behind-the-meter assets across Europe. Sebastian has over 15 years of experience in project finance, including his previous role as Director at Europe's largest private energy efficiency fund. As a CFA Charterholder and engineer by trade, Sebastian is driven by developing innovative investment solutions that accelerate the deployment of green assets and make the energy transition a reality.

About Julia Sokołowska

Julia Sokołowska is an Investment Analyst at Solas Capital AG, where she manages a range of investment activities. She completed her MA in International Development with a Specialization in Sustainable Finance at the Geneva Graduate Institute; she also holds a BA in Environmental Studies and International Relations from Wellesley College in the USA. She brings experience in sustainability and climate change governance in the IGO and NGO sectors. Julia is a CAIA Charterholder.

About Solas Capital

At Solas Capital we provide specialised financing solutions for demand-side energy projects, bridging the gap between institutional investors and high-impact energy efficiency projects. Unlike traditional renewable energy investments focusing on supply, we specialise in reducing energy demand at scale—an often-overlooked but equally important pillar to reach Net-Zero.

We focus on the building sector—responsible for 40% of Europe's energy consumption—and industrial efficiency, providing capital to project developers to offer zero upfront cost solutions. Our team of experts structures funding solutions for distributed energy transition projects across Europe, delivering cost savings while reducing fossil fuel dependence.

Our asset-backed private credit strategy offers investors fixed-income like returns from EU Taxonomy aligned assets while accelerating Europe's transition to a carbon-neutral economy. We firmly believe that the best energy is the energy we don't use.

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References:

1. Andrei, D. M. "The energy efficiency issue in the European Union: perspectives, objectives and challenges." Munich Personal RePEc Archive Paper No. 118326 (2023).
2. Bertoldi, P., and Mosconi, R. "Do energy efficiency policies save energy? A new approach based on energy policy indicators." Energy Policy 139 (2020): 111320-111335.
3. Buildings Performance Institute Europe. "Energy Performance Certificates across the EU: Mapping of national approaches." BPIE (2021).
4. Cagno, E., et al. "Evaluating the barriers to specific industrial energy efficiency measures: an exploratory study in small and medium-sized enterprises." Journal of Cleaner Production 82 (2014): 38-49.
5. Cespedes-Lopez, M.F., et al. "Meta-Analysis of Price Premiums in Housing with Energy Performance Certificates (EPC)." Sustainability 11.22 (2019): 6303.
6. CRIF. "An Overview of European Banks' Green Asset Ratio Disclosure for 2024." Market Analysis Report (2024). https://www.crif.com/knowledge-events/resources/an-overview-of-european-banks-green-asset-ratio-disclosure-for-2024/
7. Energy Efficiency Movement. "Energy Efficiency Measures Help Reduce About 20000 Tonnes of CO2 Emissions of Multinational Dairy Producer." Energy Efficiency Movement (2024). https://www.energyefficiencymovement.com/energy-efficiency-measures-help-reduce-about-20000-tonnes-of-co2-emissions-of-multinational-dairy-producer/
8. European Commission. "Commission Delegated Regulation (EU) 2021/2139 supplementing Regulation (EU) 2020/852 by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation." Official Journal of the European Union L 442 (2021).
9. European Commission. "Directive (EU) 2022/2464 of the European Parliament and of the Council on corporate sustainability reporting." Official Journal of the European Union L 2464 (2022).
10. European Commission. "Directive (EU) 2024/1275 of the European Parliament and of the Council on the energy performance of buildings (recast)." Official Journal of the European Union L 1275 (2024).
11. European Commission. 'Directive (EU) 2023/1791 of the European Parliament and of the Council on energy efficiency (recast).' Official Journal of the European Union L 1791 (2023).
12. European Commission. "Flash Eurobarometer 549: SMEs, Resource Efficiency and Green Markets." Publications Office of the European Union (2024). Survey conducted June 3-28, 2024.
13. European Commission. "In focus: Energy efficiency in buildings - European Commission." European Commission News, February 17, 2020. https://commission.europa.eu/news/focus-energy-efficiency-buildings-2020-02-17_en
14. European Commission. "Quarterly reports confirm significant recovery on EU gas and electricity markets in 4th quarter 2023." European Commission News, June 6, 2024. https://energy.ec.europa.eu/news/quarterly-reports-confirm-significant-recovery-eu-gas-and-electricity-markets-4th-quarter-2023-2024-06-06_en
15. European Commission. "Regulation (EU) 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088." Official Journal of the European Union L 198 (2020).

16. European Commission. "REPowerEU Plan." COM/2022/230 final, Brussels: European Commission (2023).
17. Eurostat. "Complete energy balances." European Commission Statistical Office (2025). https://ec.europa.eu/eurostat/databrowser/view/nrg_cb_e/default/table?lang=en
18. Knoop, K., and Lechtenböhmer, S. "The potential for energy efficiency in the EU Member States – A comparison of studies." Renewable and Sustainable Energy Reviews 68 (2023): 1097-1105.
19. Kolosok, S., et al. "Renewable energy innovation in Europe: Energy efficiency analysis." E3S Web of Conferences 234 (2023): 00021.
20. Liebreich, M. "Net Zero Will Be Harder Than You Think. And Easier. Part II: Easier." BloombergNEF (2024).
21. Liu, X., et al. "Environmental information disclosure and corporate energy efficiency: Evidence from Chinese listed companies." Energy Policy 173 (2023): 113365.
22. Mahlia, T.M.I., et al. "Cost-Benefit Analysis and Emission Reduction of Energy Efficient Lighting at the Universiti Tenaga Nasional." Journal of Cleaner Production, vol. 85, 15 Dec. 2014, pp. 350-355. PubMed Central, PMC4123577.
23. Pérez-Lombard, L., Ortiz, J., and Velázquez, D. "Revisiting energy efficiency fundamentals in the new energy paradigm." Energy Efficiency 7.2 (2024): 239-254.
24. Reid, G. "Efficiency as Energy's Hidden Giant: Transforming Systems Through Strategic Reduction." Energy Strategy Reviews 42 (2024): 100-112.
25. Reuter, M., Patel, M.K., and Eichhammer, W. "Applying ex-post index decomposition analysis to primary energy consumption." Energy Efficiency 10 (2023): 1381-1400.
26. Sautner, Z., Yu, J., Zhong, R., and Zhou, X. "The EU Taxonomy and the Syndicated Loan Market." Journal of Financial Services Research 58 (2025): 1-29
27. Schneider Electric. "The EU Energy Efficiency Directive in Review – a Cornerstone to Close Ambition Gaps." Schneider Electric Perspectives (2023). https://perspectives.se.com/blog-stream/eu-energy-efficiency-directive-in-review
28. Sgaravatti, G., et al. "How to finance the European Union's building decarbonisation plan." Bruegel Policy Brief (2024). https://www.bruegel.org/policy-brief/how-finance-european-unions-building-decarbonisation-plan
29. Statista. "Natural Gas Consumption in the EU in Cubic Meters." Statista (2024). https://www.statista.com/statistics/265406/natural-gas-consumption-in-the-eu-in-cubic-meters/
30. Thomas, S., and Rosenow, J. "Drivers of increasing energy consumption in Europe and policy implications." Energy Policy 111108 (2023): 1

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