Statement of the German Business Initiative on Energy Efficiency – DENEFF e. V. and DENEFF EDL_HUB gGmbH

Regarding the Call for Evidence of the EU Commission from 27.08.2025

Electrification Action Plan

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Thank you for the opportunity to participate in the EU Commission's Call for Evidence regarding the Electrification Action Plan. We share our comments with you from the perspective of the energy efficiency sector, and we will be available for further consultation as the process continues.

Background and Summary

In times of the continuation of inefficient fossil-based energy consumption at high levels, high electricity prices, vast untapped energy saving potentials, and the uncertainty regarding OPEX switching from fossil to electricity, a dedicated strategy is essential.

Persistently high energy costs and reliance on energy imports put both European industry and households under pressure. Energy bills now account for up to 25% of average housing costs. Europe still imports roughly 60% of its energy, mostly fossil, and 19% of total gas imports still come from Russia. At the same time, electrification and the demand for growing energy-intensive infrastructure, such as data centres and AI facilities, further strain electricity grids.

Ambitious energy efficiency measures are vital in achieving energy resilience, affordability, and a cost-effective transition from fossil fuels to electricity in the buildings and industrial sectors. They significantly boost energy productivity, reduce energy bills, and lessen the need for costly energy system expansions. The untapped energy efficiency potential in Europe's buildings and industry sectors remains substantial. Electrifying the energy demand in the buildings and industrial sector is a central energy-efficient decarbonisation path, but highly ineffective and costly when other efficiency measures are not implemented.

Europe is already a global technology leader in both energy efficiency and electricity-based green technologies. Unlocking this combined potential means strengthening the domestic market, creating and securing millions of high-quality jobs, and building long-term economic wealth for Europe. Targeted policy frameworks and smart state aid can realise the full growth potential of this sector, while supporting a socially fair transition and climate neutrality.

We therefore fully endorse the Commission's ambition to develop an Electrification Action Plan. Electrifying industrial and residential heat is a cornerstone of climate neutrality, competitiveness, and energy sovereignty, with energy efficiency at its core, supported by clear targets, investment incentives, and structural reforms.

We recommend considering the following measures:

1. **Make electrification smart –** include the Energy Efficiency First principle in the Electrification Action Plan and enforce implementation (prioritise efficiency and demand side management if more cost-effective than supply-side investments)
2. **Connect electrification with efficiency policies** – reduce electricity prices, but conditional on parallel policies increasing energy efficiency
3. **Unlock massive market potential, secure Europe's technology leadership & tackle lacking grid access** – elevate the domestic electrification technology market
4. **Energy Efficiency as a Service** – unlock transformation for SMEs, vulnerable households, and heating and cooling networks

Our Recommendations in Detail

1. Make electrification smart – include the principle in the Electrification Action Plan and enforce implementation (prioritise efficiency and demand side management if more cost-effective than supply-side investments)

Fact Box: Energy savings potential in the industrial and building sector

In Germany, massive energy savings potentials exist in various areas of the **industrial sector**. In total, 44% of the industry's final energy consumption could be saved economically without production cuts. The biggest saving potential lies within industrial process heat[1], which accounts for two-thirds of the final energy consumption of the German industry[2]. Half of the energy (~226 TWh/a) required to produce process heat – representing one third of the total industrial energy use – can be saved economically. This means lower greenhouse gas emissions and bringing down the industry's energy bill by about 21 bn euros every year. It would also ease the transition away from fossil fuels and Russian gas. In the case of Germany, it could remove four big coal-fired plants and two LNG terminals[3]. Energy efficiency measures not only bring down system costs but also cut the energy bills of industrial companies and enable the transition towards climate neutrality. Many energy efficiency measures are realised with low investments – e.g. hydraulic balancing of heating systems or replacement of inefficient heat distribution pumps, reducing on average 15-30% of the total costs for heating. However, only ~20% (42 TWh/a) are attributed to electrification. 167 TWh/a can be saved through classical efficiency measures such as process optimisation, control systems, insulation, and waste heat reuse. If this potential remains untapped, Germany's electricity system must cover these 167 TWh/a additionally – significantly increasing system expansion needs, costs, and energy prices. This illustrates that electrification without efficiency is inefficient and unaffordable.

Industrial **production halls and heated warehouses** across Europe are often still equipped with outdated heating systems. Modernising these systems can reduce energy demand by 30–50%, leading to significant cost savings and emission reductions[4].

Concurrently, **new infrastructure demands** are emerging as data centres and AI facilities proliferate, concentrating energy use in urban hubs and straining local grids. AI-ready racks now consume 40 to 135 kW each compared to traditional 4 to 6 kW, with upcoming systems announced to exceed 500 kW[5]. These rapidly growing energy consumers accelerate the need for more robust, flexible, and decarbonised systems.

Energy efficiency in buildings is one of the largest untapped levers for reducing electricity demand and easing pressure on the energy system. In the area of decentralised heat supply alone, electricity demand would increase drastically without energy efficiency measures – requiring up to

[1] Source: Meyer, Jörg et al. 2023: Kurzstudie Energieeffizienzmaßnahmen in der Industrie. Krefeld.
[2] Source: IN4climate.NRW (Ed.) 2022: Prozesswärme für eine klimaneutrale Industrie – Impulspapier der Initiative IN4climate.NRW. Gelsenkirchen.
[3] Source: Meyer, Jörg et al. 2024: Short Study: Energy-Efficient and CO_2-Free Process Heat. Krefeld.
[4] Source: Oschatz, Bert et al. 2012: Gesamtanalyse Energieeffizienz von Hallengebäuden. Stuttgart.
[5] Source: Frank Long. 2025: 1,000 homes of power in a filing cabinet - rising power density disrupts AI infrastructure. Goldman Sachs.

98 GW of additional capacity and 153 TWh/year just in Germany. This alone would equal the output of around 200 additional gas power plants (each 500 MW) – roughly three times today's installed gas generation capacity in Germany[6]. Energy Efficiency measures not only lower total energy use but also reshape demand curves. By flattening winter peaks, they reduce the need for costly backup power and grid expansion. More efficient buildings also retain heat longer, effectively acting as thermal buffer storage. This allows for greater flexibility in electricity supply, as buildings can be temporarily taken off the grid—or shift demand—without sacrificing comfort or even being noticed by occupants. With renovation rates still far below 1% (Germany), the potential remains immense. Monitoring technologies can provide real-time information on heat and electricity consumption, enable evidence-based energy management while simultaneously empowering consumers. Efficiency in buildings thus serves not only climate goals but also plays a vital role in ensuring system stability, reducing infrastructure needs, and enabling secure and affordable heating and cooling in a fully decarbonised energy system.

Situation and Problem

In the German industry, three-quarters of all industry-related CO2 emissions can be traced back to process heat[7], as the provision of industrial process heat is highly dependent on fossil fuels (in Germany, to more than 70%[8]). In the German building sector, nearly 80% of space heating (including hot water) is based on fossil fuels like gas and oil[9]. Fossil dependency makes European industry and tenants equally vulnerable to price shocks resulting from external events like the Russian invasion of Ukraine or the unstable situation in the Middle East. Furthermore, it is a great barrier to reaching climate neutrality in the industry and the buildings sector.

Solution

Energy efficient electrification is not optional – it is the precondition for a cost-effective, competitive and resilient energy transition. The success of the Electrification Action Plan hinges on ensuring that electricity is not just clean but also used efficiently. Strategic integration of energy efficiency will ensure that electrification enhances Europe's competitiveness, avoids costly overbuilds, strengthens energy sovereignty, and decreases the risk of a subsidy spiral[10]. To unlock this potential, targeted actions are needed in three key areas:

- Industry: Before the electrification of industrial process heat, energy efficiency measures should be increased, processes optimised, load flexibility measures conducted, and digital energy management systems introduced. Minimise energy demand through ambitious energy efficiency end-use requirements and meet the residual demand with on-site and district-level generation primarily, with priority given to emission-free energy solutions. Making this sequence mandatory would give Member States a clear decision tree and operationalise the Energy Efficiency First principle embedded in EU energy legislation.

[6] Source: iöw (Ed.) 2025: Die Rolle der Gebäudeeffizienz für die Wärmewende. Berlin.
[7] Source: Agora Industry (ed.) 2024: Direct electrification of industrial process heat. An assessment of technologies, potentials and future prospects for the EU. Berlin.
[8] Source: Fraunhofer ISI & Institut für Industrieofenbau und Wärmetechnik (IOB) (ed.) 2024: Policy Brief Co2-neutrale Prozesswärme durch Elektrifizierung und Einsatz von Wasserstoff. Karlsruhe.
[9] Source: dena (ed.) 2023: dena-Gebäudereport 2024: Klimaschutz im Gebäudebestand. Berlin.
[10] If no energy efficiency measures are implemented, there is an increased risk of overcapacity and unnecessary increases in system costs. Grid operators will pass these costs on to end consumers and raise electricity prices. Governments would have to step in and increase their energy subsidies.

Afterwards, process heat should be directly electrified where possible. Thermal storages complement the direct electrification and enable the exploitation of negative/competitive electricity prices. Support schemes and grid reforms should prioritise those projects that combine electrification with energy savings and system-friendly operation, enabling a double dividend of decarbonisation and demand flexibility. We recommend an action plan on the electrification of process heat, which includes guidance for European companies and member states, measures to remove market barriers and support to enable companies to adopt the best energy efficiency solutions. Energy Efficiency First should be a guiding principle for this action plan. The policy mix should aim at a 90% reduction of process heat-related CO2 emissions until 2040[11].

- Buildings: The shift to electricity-based heating and cooling in buildings should be accelerated through comprehensive renovation strategies, mandatory phase-out timelines for fossil heating systems, and smart electrification readiness (e.g. for heat pumps, PV, storage). Low-temperature electrification only delivers its full benefits when paired with high building efficiency and flexibility measures like thermal storage. This enables massive gas savings while reducing consumer bills and import dependency. Furthermore, industrial production halls and heated warehouses should be explicitly addressed in the EU Electrification Action Plan. Building standards should reflect the special requirements of hall buildings.
- Energy as a Service: Innovative service models (e.g. Energy Efficiency as a Service) are key to overcoming investment hurdles – especially for SMEs and building owners. The EU should remove regulatory barriers, promote performance-based contracting, and integrate monitoring standards to boost market uptake. This approach transforms upfront costs into manageable service payments and delivers verified energy savings and emissions reductions.
- Current EU directives: Enforce an effective Energy Efficiency Directive (EED) and Energy Performance of Buildings Directive (EPBD): The success of the Electrification Action Plan strategy depends on the large-scale deployment of emission-free solutions and energy efficiency measures in a cost-efficient manner – and therefore on the implementation and enforcement of the EED and EPBD. The following measures are necessary for that: (1) The European Commission should monitor and ensure the effective implementation of Article 3 of the recast Energy Efficiency Directive (EED) – the "Energy Efficiency First" principle – and initiate infringement proceedings against Member States that fail to apply this principle substantively. (Note: In Germany, municipalities are already developing local heat plans without fully considering the "Efficiency First" principle.) It is not sufficient for the principle to be mentioned only loosely in national legislation. It must be legally binding, enforceable, and materially applied in planning processes for larger investments – particularly in regulations concerning power plant strategies, spatial planning, and infrastructure projects if energy efficiency investments (or in combination with zero-emission generation) are more cost-effective than supply-side investments in central power stations. As an alternative to safeguarding lean infrastructure planning, Member States should be required to organise parallel tenders to achieve a corresponding volume of “negawatts” by

[11] In coherence with the EU Commission’s climate target 2040.

Energy Efficiency and flexibility efforts, and to prevent possible oversizing at the same time. (2) Enforce the quick and ambitious implementation of the recast of the EPBD and especially of minimum energy performance standards (MEPS) (Art. 9 EPBD). (Note: Rapid planning security for building owners, industry and all relevant stakeholders is essential. Meanwhile, German officials have already held out on the prospect of using all possible loopholes to exceed the deadline of transferring the EPDB into national law. This undermines the directive's impact and creates uncertainty at a time when stable planning conditions are urgently needed.)

2. Connect electrification with efficiency policies – reduce electricity prices, but conditional on parallel policies increasing energy efficiency

Situation and Problem

The current gas-to-electricity price ratio often hinders the uptake of decarbonisation measures in the buildings and industrial sectors. In Germany, electricity is three times more expensive than gas. Thus, it makes many electricity-to-heat solutions economically unattractive, despite their often much higher efficiency. Additionally, Europe's industrial competitiveness is undermined by significantly higher energy costs, with electricity costs 2.5 times higher than in the US[12]. Many stakeholders, therefore, call for lower electricity prices, e.g. through tax cuts and subsidies. Although decreasing electricity prices across the board will make the heat transformation economically more attractive, it will reduce the incentive for companies and households to use electricity efficiently. Without a parallel push for energy efficiency, electricity demand for all types of heat generation would rise significantly, requiring an increasing total electricity subsidy volume. Potentially, this will result in a subsidy spiral keeping prices low while the costs of the electricity system continue to rise. A new study has found that the current policy framework does not sufficiently pave the way towards electrification[13]. It is time for a coordinated policy mix to unlock the industry's and buildings' potential to decarbonise.

Solution

It is necessary to overcome the disparate ratio of gas and electricity prices. To avoid a subsidy spiral, we recommend reducing electricity prices for the industry and buildings sector, conditional on policies increasing energy efficiency, and, where applicable, as a precondition for access to subsidies as foreseen in the Clean Industrial Deal State Aid Framework (CISAF) and Climate, Energy and Environmental Aid Guidelines (CEEAG).

- In parallel to energy price reduction through tax relief and subsidies (aim: price ratio < 2), smart and, if possible, uniform investment incentives for increasing energy efficiency and thus increasing energy productivity should generally be set. Otherwise, we risk ending up in a subsidy spiral, as increasing electricity usage will automatically increase the subsidy demand. The following macro instruments and options are expected to have a particularly broad, cross-technology and cross-sector impact (> 10 TWh/a by 2030 in each case):

[12] Source: AFRY (2023): Internationaler Vergleich von Strompreisen für die Industrie. Leipzig.
[13] Source: Rosenow et al. (2025): The heat is on: Policy solutions for industrial electrification. *Energy Research & Social Science*. 127.

    - The consistent implementation of highly cost-effective energy efficiency measures. (Note: In initial drafts of the German Energy Efficiency Act, this was planned to be mandatory but was dropped later.)
    - ETS II has to be designed in such a way that the CO2 price reflects the economic cost of carbon emissions.
    - Energy Efficiency Certification Schemes as a market-based incentive system with quantity control (e.g. tendering models which could also be tailored to savings that are most effective in peak-consumption periods).
- Ecological compensation requirements, as mentioned in CISAF, are important measures turning pure price subsidies into strategic measures improving climate impact. They should be maintained and consequently enforced.
- Maintaining and enforcing the implementation of an effective Energy Efficiency Directive (EED), Energy Performance of Buildings Directive (EPBD), and Ecodesign- and labelling directives are requirements for energy price subsidies. An effective implementation of those directives, along with mandatory energy efficiency measures, limits the risk of a subsidy spiral. Furthermore, we request the quick national implementation of minimum energy performance standards for non-residential buildings as laid out in the EPBD, as well as the introduction of MEPS for residential buildings and allowing an extended system approach for industrial equipment, to unlock additional efficiency potentials in Ecodesign regulations.

3. Unlock massive market potential and secure Europe's technology leadership & tackle lacking grid access – elevate the domestic electrification technology market

Fact Box: Electricity-based process heat technologies at mid- and high-temperature levels are available

The former Heating & Cooling Strategy from 2016 talks about the low-temperature range and holds out the prospect that electricity-based technologies up to 250 degrees will soon be ready for the market. Today, electricity-based technologies reaching mid- and high-temperature levels are available as well and market-ready already. Besides the use in buildings, in total, also 60% of all industrial process heat is electrifiable with existing technologies and more than 90% until 2035[14]. Therefore, the decarbonisation of process heat through direct electrification is not only possible at low-temperature levels, but at mid- and high-temperature levels.

Massive market potential – electrification technology in industrial heating as a domestic market

Low-exergy heat technologies are a key driver of Greentech growth in Germany. Clean, efficient, and electrified process heat technologies alone have grown by 6.8 percentage points per year, which is 1.2 percentage points faster than the overall Greentech sector. Tapping the energy savings potential and achieving full decarbonisation could drive up the market volume for the EU

[14] Source: Agora Industry (ed.) 2024: Direct Electrification of Industrial Process Heat. An Assessment of Technologies, Potentials and Future Prospects for the EU. Berlin.

manufacturers of clean, efficient, and electrified process heat technologies by a factor of 22. Nearly one million new jobs could be created in Germany alone[15].

Industrial production halls and heated warehouses represent major untapped efficiency markets. Broad deployment of modern, energy-efficient solutions can unlock substantial energy savings, improve working conditions, and strengthen Europe's competitiveness in building technologies.

Situation and Problem

Despite great growth rates, Europe's share of exports in the global export market has decreased. This is the case for clean and efficient process heat technologies[16]. China is advancing rapidly in this market. Germany and Europe-based manufacturers have already lost the race against China in many segments of generation technologies (e.g. wind turbines, PV).

In Germany, the scale-up of this market and the necessary transition from fossil fuels to electricity-based technologies in industry, buildings and commerce are being delayed by many years[17] due to unresolved problems with grid connection procedures: the existing capacities of the electricity grids are limited, and the mechanism of approval is no longer suitable[18]. It is questionable whether the 860 grid operators in Germany alone and their mostly old, analogue grids are prepared for this rush. One thing is certain: grid expansion is progressing too slowly, and the methods used to calculate and process capacity are still largely analogue.

Solution

Advancing the transition to clean, efficient, and electrified industrial process heat and space heat, as well as hot water, including ambitious efficiency measures, not only contributes to Europe's path to climate neutrality, but it is also an investment in the domestic market and Europe's leadership in technology, benefiting European companies and employees in the long term. For example, in Germany alone, energy-efficiency measures in buildings generated around €85 billion in gross production and sustained approximately 575,000 jobs (directly and indirectly)[19]. The EU needs to act if it wants to secure the potential. Necessary measures are in line with several objectives of the new plan for Europe's sustainable prosperity and competitiveness, and reinforce Europe's advantage in green and efficient technology.

- Foster planning security by defining crucial targets: Define energy efficiency and decarbonisation targets for the Electrification Action Plan. Define ambitious electrification targets for buildings and industries. In general, define energy efficiency targets that go beyond 2030.
- Ramp up support schemes to enable companies and households to adopt the best energy efficiency solutions to decarbonise their heat and cold demand (e.g. consistent funding,

[15] Source: Prognos (ed.) 2025: Marktanalyse: Net-Zero Technologien für energieeffiziente Prozesswärme. Berlin.
[16] Source: Prognos (ed.) 2025: Marktanalyse: Net-Zero Technologien für energieeffiziente Prozesswärme. Berlin.
[17] In many cases between five to ten years.
[18] The current approval procedure works according to the principle first-come, first-serve. This does not reflect that some companies, projects, etc. have greater system-level benefits than other. Furthermore, it does not reflect exploiting existing energy efficiency potentials risking rewarding companies, projects, etc. with greater grid connection than necessary while other decarbonisation projects cannot be realised.
[19] Source: UBA (2024): Ökonomische Indikatoren von Maßnahmen zur Steigerung der Energieeffizienz - Materialien Berichtsjahr 2023. Berlin.

easier access to loans specifically for SMEs, specific loans with an option of the adjournment of repayment cycles, secure carbon contracts for difference).

- Promote the introduction of derisking instruments such as tripartites at the national level to encourage the uptake of decarbonisation projects.
- Mandate member states to put up roadmaps for the energy-efficient electrification pathways of low-, medium-, and high-temperature heat and connect them with the Heating & Cooling Strategy.
- Allocate Horizon Europe funds for R&D pilots in emerging heat technologies.
- Elevate lead markets for decarbonised basic commodities through guidelines for public procurement.
- Ensure the physical supply of electricity: Enable expansion of electricity grid connections for companies in a timely manner. The following measures are known to advance grid access:
    - Network operators should make their network data, capacities, anticipated developments and fees, as well as application procedures, transparent in a standardised and digitalised form. Binding cooperation and digitalisation of the 860 distribution networks in Germany alone is essential for this; non-compliance with and delays in EU regulations[20] should be penalised. Only with a smart grid can energy flows be monitored in real time, demands be identified, grid connection requests be controlled, and efficient measures be introduced in a timely manner. Those requesting grid connection can better identify how they can optimise their capacities through investments or load flexibility and increase planning security.
    - Changing the mechanism of grid connection approval from, e.g. the German first-come, first-served mechanism to a procedure that rewards/requires energy efficiency measures considered in the grid connection procedure.
    - A transparent, digital and pragmatic procedure based on a 'use it or lose it' approach to reallocate unused connection capacity: In the Netherlands, it has been proposed that existing contracts should be shortened if they are not being utilised[21]. This would free up previously blocked capacity for new connection applicants.
    - Time-variable grid fees[22] offering economic incentives to use grids when they are sufficiently available: This reduces grid load and expansion. Since April 2025, grid operators in Germany have been required to offer time-variable grid fees for controllable consumption facilities in the low-voltage range[23]. So far, only households and businesses have benefited from this. Industrial companies should also have this option. Therefore, we recommend advancing time-variable grid fees across Europe for the middle- and high-voltage grids as well.
    - Flexible grid connection contracts with lower secured grid capacity, encouraging companies to use less grid capacity and take advantage of predictable generation

[20] Source: Electricity Market Regulation (Art. 50/57), Electricity Market Directive (Art. 31), RAP Transparent grids for all
[21] Source: RAP Gridlock Netherlands
[22] Instead of annual performance prices and discounts for band load procurement as previously, Section 19, Paragraph 2.2 of the German Electricity Grid Fee Regulation.
[23] Source: German Federal Network Agency

peaks through discounts and predictability: As in the Netherlands[24], this allows higher electricity demands to be met with the same connection capacity. Electricity that would otherwise be curtailed thus becomes usable. In the event of a grid bottleneck, grid operators can reduce capacity for contractual partners with sufficient advance notice[25].

4. Energy Efficiency as a Service – unlock transformation for SMEs, vulnerable households, and heating and cooling networks

Situation and Problem

The transition from fossil-based heating and process heat to electrified solutions – primarily heat pumps – is a cornerstone of decarbonisation. However, this shift is slowed down by persistent structural, financial, and regulatory barriers. Energy Service providers (ESCos) can solve some of the significant issues and unleash the investments into electrification. However, a couple of barriers prevent key actors, such as ESCos, from moving forward and risk leaving cost-effective savings untapped, delaying the heat transition, and deepening social inequalities. The major challenges can be grouped into four key areas:

a) Stable and Supportive Regulatory Framework

- Non-discriminatory market access for ESCos is lacking or inconsistently applied across Member States, restricting a level-playing field access to finance, subsidies, and customers.
  Delays and uncertainties in implementing EU directives (EED, EPBD, RED III) undermine investor confidence.
- Electricity pricing structures and taxation currently impede electrification efforts crucial for decarbonisation.

b) Ignite and stabilise District Heating and Cooling (DHC) Expansion

- For the use of electrified heating and cooling, the expansion of heating and cooling grids is one focal point of the strategy.
- Existing DHC infrastructure is insufficient in coverage and scale, limiting the distribution of electrified heat and cold.
- Heat mapping obligations are insufficiently enforced or set at too high population thresholds, reducing effective planning and coordination.
- Local governments and utilities face a lack of technical and financial resources to implement comprehensive electrification strategies.

c) Waste Heat Reuse

[24] Source: RAP Gridlock Netherlands
[25] Although the EU Commission already calls with its Directive 2024/1711 upon member states to enable flexible grid connection contracts, in Germany grid operators are not obliged to offer them. However, they should be obliged to offer flexible grid connection contracts once a critical amount of energy is available for a limited period.

- The electrification of heating and cooling can be massively supported, and the efficiency increased by using waste heat resources. However, the waste heat usage is hampered by a combination of impediments:
- Sectoral targets and obligations for waste heat recovery and reuse are missing or underdeveloped beyond district electrical-based heating and cooling systems.
- Insufficient incentives hinder industries from investing in waste heat recovery, including limited ETS crediting and unclear reporting exemptions.
- New urban and industrial developments are not uniformly required to connect to DHC networks by using waste heat.

d) Social Contracting and Energy Poverty

- The investment in decarbonised heating and cooling structures requires large amounts of investment and will, in the short term, lead to increasing costs for heating and cooling.
- Vulnerable households face financial and structural barriers to participating in energy efficiency and clean heating measures.
- Lack of dedicated support mechanisms prevents equitable access to renovation and clean heat supply.
- Innovative funding models combining energy service providers and social subsidies are not yet widely implemented or scaled.

Solution

ESCOs are key actors in delivering the electrification and heat transformation across sectors. In the shift from fossil-based heating and process heat to electrified solutions – above all, heat pumps – they can provide "decarbonisation by electrification" as a service: planning, financing, and operating complex systems without upfront costs for the user. This model removes financial and technical barriers for SMEs, municipalities, and households, as ESCos take over investment risks, guarantee performance, and turn high initial costs into manageable service payments. At the same time, they combine efficiency, renewable heat, and digitalisation, ensuring that electrification remains affordable, socially inclusive, and consistent with the decarbonisation of the heating and cooling market.

To fully leverage their potential, the following measures are needed:

a) Stable and Supportive Regulatory Framework

- Create non-discriminatory national frameworks: Require Member States to ensure fair market access, financing options, and subsidies for energy service providers within the next 2 years at the latest.
- Ensure stable implementation: Avoid disruptive changes such as "energy omnibus" laws. Ensure full and swift implementation of the EPBD, EED, and RED III to provide legal certainty.
- Support electrification: Scale up electrification by introducing fair electricity pricing (electricity-to-gas ratio <2), reforming electricity taxation, and implementing carbon pricing for fossil heating (ETS 2). Support flexible and smart integration of electrified processes.

b) District Heating and Cooling (DHC) is one of the major playgrounds of ESCo businesses, and could contribute to the upscaling of electrified systems, but is still hampered by inconsistent, unambitious framework conditions

- Boost expansion and decarbonisation: Strengthen legal mandates and tie financial support for new electrified DHC systems to smart, low-temperature, waste heat/cold-ready and renewable-based networks.
- Strengthen heat mapping: Lower the threshold for municipal heat planning obligations (e.g., from 45,000 inhabitants), include district cooling, and link planning outcomes to ESCo and utility action.
- Mandate recovery from major waste heat/cold sources.
- Standardise technical interfaces: Define standards for contracts and technologies used to feed into DHC networks to ease integration.

c) Set Waste Heat Reuse Targets to boost the electrification of heating and cooling

- Sectoral reuse obligations: Expand waste heat use beyond DHC. Introduce sectoral targets (e.g., industry, large commercial buildings) and require basic data collection.
- Mandate connections: Require new major urban/industrial developments (e.g. data centres, cold stores) to be DHC-ready. Oblige DHC networks to accept such heat.
- Incentivise recovery: Make waste heat recovery eligible for free ETS allocations and exempt waste heat delivered to third parties from Scope 3.11 reporting obligations.
- Integrate the cold chain: Recognise cold infrastructure as critical. Mandate digital monitoring (temperature, leakage, predictive maintenance) in supermarkets, logistics, and cold storage. Enable integration of recovered cold chain heat into DHC networks.

d) Roll out Social Contracting and mitigate Energy Poverty

- Implement social contracting models: Empower low-income households to participate in the heating transition. Social contracting combines energy-efficient renovation and clean heating via ESCOs, while investments are refinanced through the heat price and subsidised by the EU Social Climate Fund.
- Ensure affordability: These models make climate-friendly heat supply cost-neutral, preserving affordable warm rents after renovation and supporting a just heat transition.