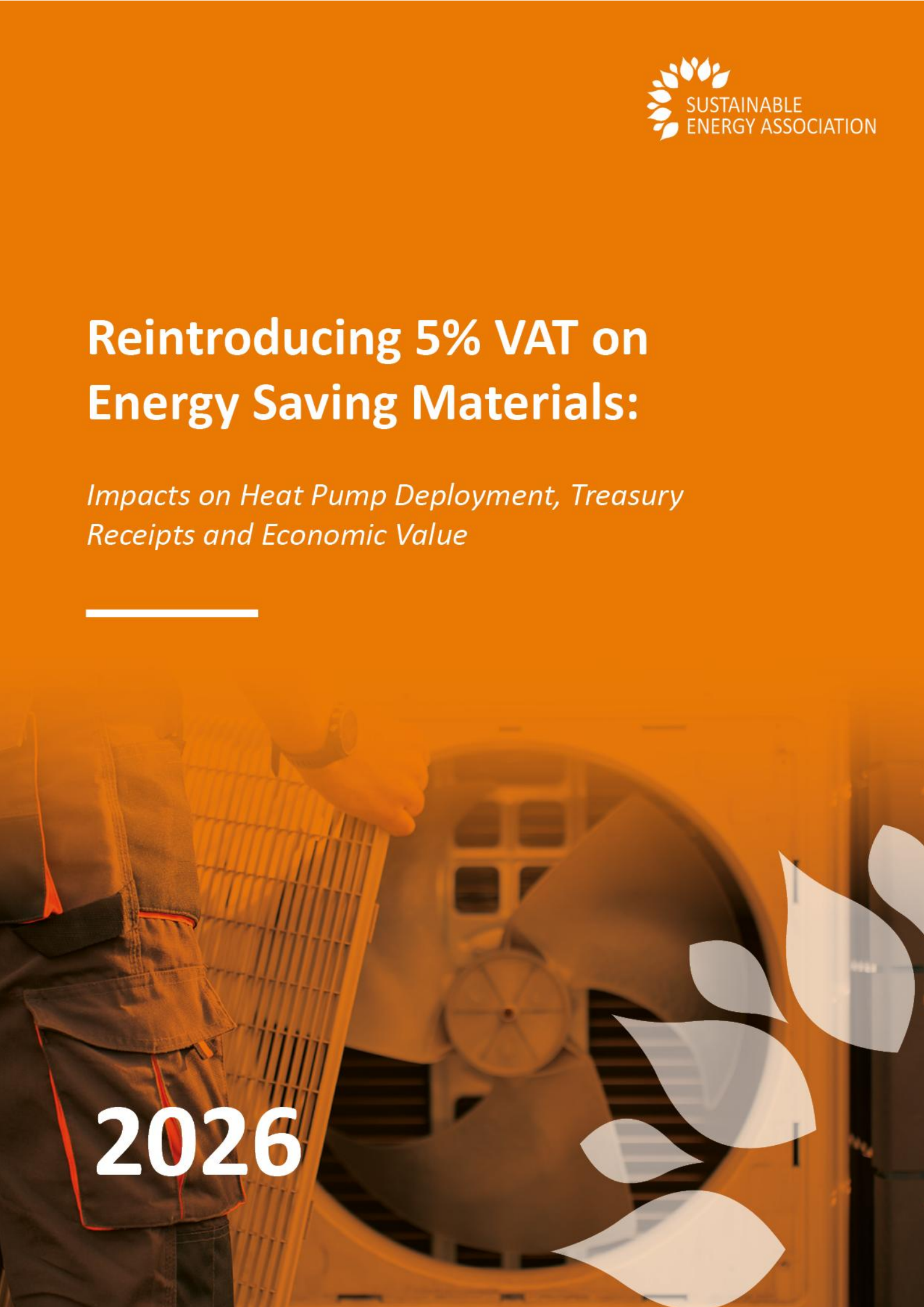


Reintroducing 5% VAT on Energy Saving Materials:

*Impacts on Heat Pump Deployment, Treasury
Receipts and Economic Value*



2026

EXECUTIVE SUMMARY

The scheduled expiry of the 0% VAT relief for Energy Saving Materials presents a choice between generating additional tax revenues and maintaining support for the deployment of low-carbon technologies. While a return to the 5% VAT rate would increase receipts for the Exchequer, it would also increase the upfront cost of technologies that are central to the Government's ambitions on home decarbonisation, energy security and economic growth.

Using heat pumps as a case study, this report assesses the impact of reintroducing 5% VAT on deployment, economic activity and Treasury revenues. Our modelling suggests that higher installation costs would reduce demand, leading to fewer heat pump installations, lower levels of economic activity and slower growth across the wider supply chain.

Between 2027 and 2040, reintroducing 5% VAT is estimated to result in approximately **365,000 fewer heat pump installations than would occur if the current relief were maintained**. This reduction in deployment is associated with around £2.5 billion of lost Gross Value Added across UK manufacturing, distribution and installation activity.

The economic impacts extend beyond lost output. By 2040, lower deployment could reduce demand for almost 3,000 full-time equivalent roles across the heat pump supply chain, with around 4,100 fewer active installers and 5,500 fewer trained installers supported by the market. Installer revenues are also estimated to be almost £69 million lower per year by 2040, reducing the incentive for businesses to invest in recruitment, training and expansion.

When the additional VAT receipts are considered alongside the loss of economic activity and the carbon impacts associated with slower heat pump deployment, the overall effect of the policy is negative. Applying a 3.5% discount rate, **our modelling produces a negative net present value of approximately -£380.5 million between 2027 and 2040, suggesting that the wider economic and environmental costs outweigh the fiscal benefits for HM Treasury**.

We also note that the findings presented here are likely to be conservative. While the analysis captures direct market, fiscal, economic and carbon impacts, it does not fully account for wider effects such as changes in investment decisions, supply-chain development, economies of scale, productivity improvements, innovation and workforce growth. As a consequence, the overall economic cost of reintroducing VAT may be greater than the estimates presented in this report.

Taken together, the evidence suggests that extending the current relief would provide a more favourable economic outcome while supporting the Government's objectives on economic growth, energy security, supply-chain development and the decarbonisation of homes.

Given the importance of the period to 2030, we recommend that government:

- Extend the 0% VAT relief for Energy Saving Materials until at least 2030, aligning it with the Warm Homes Plan and Boiler Upgrade Scheme funding period.
- Confirm any extension as early as possible to provide certainty for consumers, installers, manufacturers and investors.
- Maintain consistency between tax policy and decarbonisation objectives by avoiding additional costs on technologies that reduce energy demand, emissions and reliance on imported fossil fuels.
- At a very minimum, retain the current scope of qualifying Energy Saving Materials and review the relief before 2030 using observed deployment data and market evidence

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1. INTRODUCTION

VAT on the installation of Energy Saving Materials (ESMs) was reduced to 0% in April 2022 as part of the Government's response to rising energy prices and the need to accelerate investment in home energy improvements. The change replaced the previous 5% reduced rate for residential installations across Great Britain and simplified eligibility by removing a number of longstanding conditions.

The relief is currently scheduled to expire on 31 March 2027ⁱ, after which qualifying measures will return to the 5% reduced rate unless the Government chooses to extend it. A decision on the future of the relief is therefore likely to be required at one of the forthcoming fiscal events, potentially as early as the 2026 Autumn Budget. Ministers will need to weigh the fiscal cost of maintaining the relief against the policy objectives it was introduced to support. That decision comes at a time of increasing fiscal pressure, creating a risk that short-term revenue gains are prioritised over longer-term economic and policy outcomes.

The timing is particularly significant given the Government's wider ambitions for decarbonising homes. Reversion to 5% VAT would occur shortly after the launch of the Warm Homes Planⁱⁱ, which is expected to support the rollout of low-carbon heating and improvements to residential energy efficiency. Heat pumps are expected to play a central role in delivering these ambitions, supported by continued Boiler Upgrade Scheme funding and wider efforts to expand installer capacity, manufacturing investment and supply chains across the UK.

More broadly, improving the energy performance of buildings and deploying more efficient technologies can help reduce overall energy demand at a time when electricity consumption is expected to increase as heating, transport and industry continue to electrify. While expanding low-carbon electricity generation will be essential, reducing demand remains one of the most cost-effective ways of improving energy security, lowering energy bills and reducing pressure on the wider energy system.

Reducing VAT on energy-saving technologies was intended to address one of the most persistent barriers to uptake: upfront costs. By lowering installation costs, the relief improves affordability for consumers and helps stimulate demand. Higher deployment, in turn, supports investment, employment and economic activity throughout the supply chain, while giving manufacturers and installers greater confidence to invest in skills, capacity and innovation.

These benefits must be weighed against the VAT revenue forgone by maintaining the relief. The key question for policymakers is not simply how much revenue could be raised by returning to a 5% rate, but whether that additional revenue would outweigh the impact on deployment, investment and wider economic activity. The central issue is therefore whether the fiscal benefits of reversion justify the potential cost to market growth and the Government's wider objectives for the decarbonisation of homes.

Against this backdrop, this short report considers two key questions:

- What impact would introducing 5% VAT have on heat pump demand?
- How does the VAT revenue generated for Treasury compare with the economic value and Gross Value Added (GVA) supported across the heat pump supply chain?

Energy Saving Materials encompass a broad range of technologies, from insulation and glazing to solar PV. For the purposes of this analysis, the report focuses on heat pumps, reflecting both their role in the UK's heat decarbonisation strategy and the availability of public datasets.

2. ANALYTICAL APPROACH AND METHODOLOGY

Two linked models are used. Our VAT model estimates the net Exchequer gain from reintroducing 5% VAT, after allowing for the installations that no longer happen and the tax receipts that do not arise as a result. Our GVA model converts the same reduction in installations into lost economic output across UK installation and manufacturing activity.

a. Why heat pumps?

- Heat pumps are a central component of the Warm Homes Plan and the wider heat decarbonisation strategy.
- Robust market data exists on heat pump deployment, costs and supply chain activity, providing a strong evidence base for analysis. For the purposes of this assessment, we have used Talan's internal heat pump forecast, which draws on and extends available government data to project future deployment and market development trends.ⁱⁱⁱ
- DESNZ research on price elasticity of demand enables a credible assessment of how a 5% VAT increase would affect installation volumes.^{iv}
- Government tax data and industry margin assumptions allow wider fiscal impacts to be quantified across the supply chain.
- Existing Heat Pump Association analysis provides a robust basis for estimating the direct and indirect GVA associated with heat pump manufacturing and installation.^{v, vi}
- Compared with other technologies on the ESM list, the heat pump sector benefits from comparatively strong and transparent datasets. Datasets for the other listed technologies are much less transparent (or don't exist), which is the main constraint on extending the analysis.

b. VAT Model

Our VAT model estimates the Exchequer gain from reintroducing 5% VAT, after allowing for fewer heat-pump installations and associated tax receipts that do not arise. It runs in five stages, as shown in Figure 1.

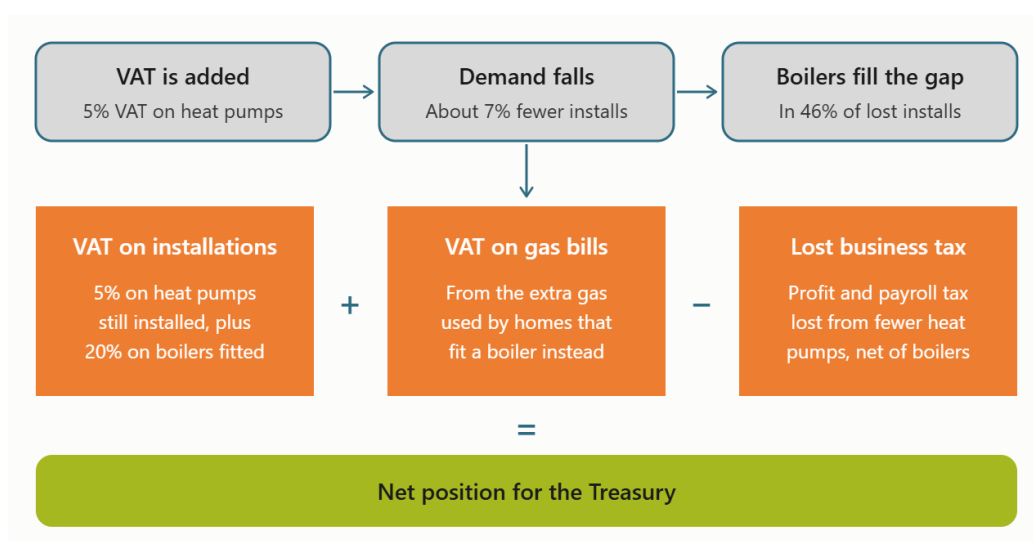


Figure 1 - Analytical flow for VAT model

Baseline deployment is established by taking the 0% VAT total-market forecast and subtracting the new-build forecast, leaving retrofit heat pump demand. This is the exposed segment: construction of new dwellings is already zero-rated, so new build is held unchanged throughout.

A 5% price shock is then applied to the retrofit purchase price. Using a price elasticity of demand of -1.3408 , the 5% increase produces a 6.704% fall in retrofit volumes. The difference between the 0% and 5% retrofit forecasts gives foregone installations in each year.

Demand destruction then feeds three linked components:

- Installation VAT receipts. The 5% charge collected on the installations that still proceed under the elasticity-adjusted demand forecast. This is the main positive Exchequer effect.
- Displaced-heating effects. The model assumes each foregone heat pump is replaced by a gas boiler. This generates VAT on additional gas bills, while changing levies and emissions.
- Opportunity-cost tax loss. Foregone profit taxes and employment taxes across the heat pump supply chain, net of the taxes generated by the replacement boiler activity.

The net Treasury position is installation VAT plus gas-bill VAT, less the net opportunity-cost tax loss.

c. The GVA model

The GVA model converts the same forecast reduction in retrofit installations into lost UK installation and manufacturing GVA. For each technology, relevant production value is converted into direct GVA using sector-specific dGVA ratios, and then into direct and indirect GVA using Type I multipliers. GVA generated by the assumed replacement-boiler activity is deducted, and the resulting net loss per installation is multiplied by annual demand destruction. Data inputs for this model come from both the Heat Pump Association^{vii}, and Eunomia^{viii}. Figure 2, below, demonstrates the 5 stages of the model.

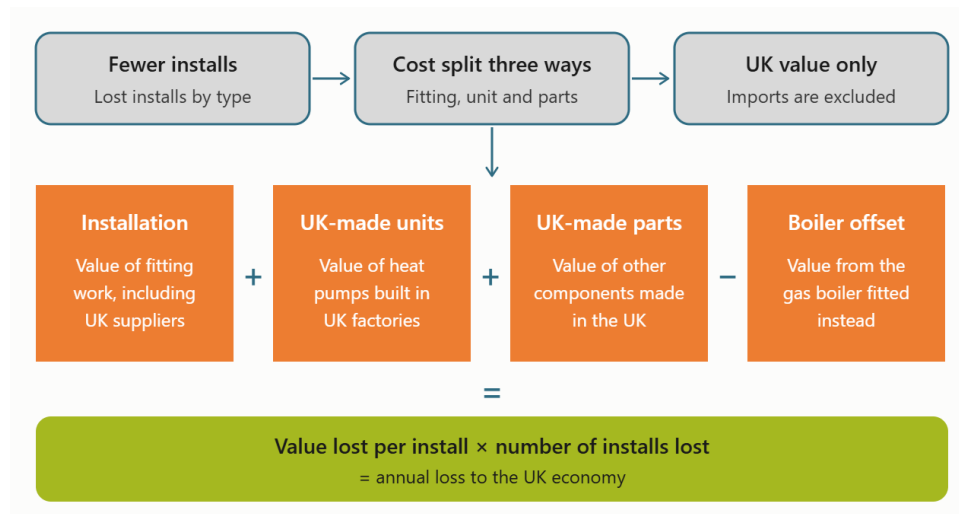


Figure 2 - Analytical flow for GVA model

Assumptions to note when reading the results

- The results capture retrofit exposure only, the new build market is zero rated.
- 46% of foregone heat pump are assumed to be replaced by a gas boiler, rather than by a deferred or alternative low-carbon installation.^{ix}
- The elasticity is applied uniformly to the retrofit segment and held constant across the forecast period.
- The two models measure different things. Net Treasury position is a fiscal outcome, meanwhile, GVA loss is economic output.

3. RESULTS AND FINDINGS

a. Retrofit Heat Pump Demand:

Retrofit demand is 6.7% lower under a 5% rate in every year of the forecast. The gap between the two lines widens in absolute terms as the market expands, so the effect is a persistent drag across the whole period as opposed to a one-off adjustment.

By 2030, retrofit demand falls from around 209,000 installations to roughly 195,000 under this scenario. The Government's ambition is for the retrofit market to reach 250,000 installations per year by 2030. The key point is that meeting the target will require strong year-on-year growth of around 50%, and the modelling suggests that removing the relief would reduce the growth trajectory throughout the period to 2030.

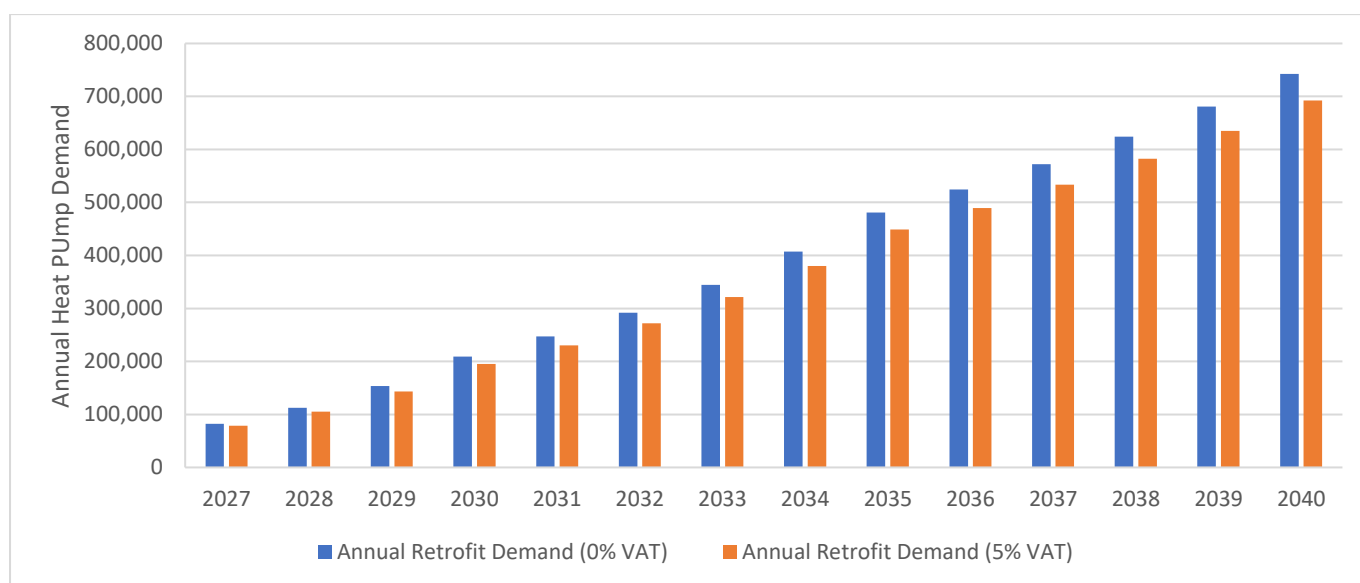


Figure 3 - Annual Retrofit Heat Pump Demand under a 5% VAT scenario

Key Message: Reintroducing 5% VAT is projected to act as a persistent drag on heat pump deployment, reducing retrofit demand by 6.7% each year and slowing progress towards the Government's target of 250,000 annual installations by 2030.

b. Foregone Installations

Split by technology, the predominant type not installed is the air-to-water heat pump, reflecting its share of the market. Air-to-air and ground-to-water units account for the remainder.

Foregone installations rise from 4,200 in 2027 to around 32,000 in 2035 and around 50,000 in 2040. Across the full forecast period, the cumulative figure is approximately 365,000 installations. These represent households that would have converted to low-carbon heating under a 0% VAT rate but are not expected to do so under a 5% VAT rate. In cumulative terms, the lost installations are equivalent to approximately 146% of one year's heat pump deployment at the Government's target rate of 250,000 installations per year, or around 18 months of installations at that level.

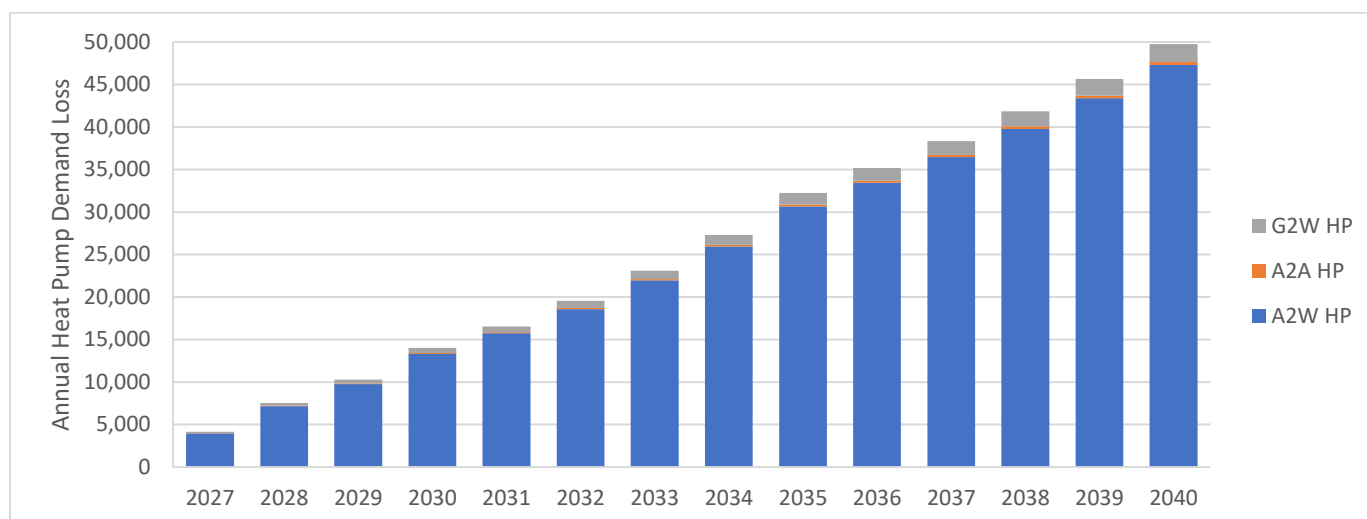


Figure 4 - Annual Heat Pump Installations Foregone under a 5% VAT Scenario Retrofit Heat Pump Demand Loss

Key message: The impact of reintroducing 5% VAT grows over time, leading to progressively larger reductions in heat pump uptake as the market expands and reducing cumulative deployment by around 365,000 installations.

c. Annual GVA Loss

The loss in direct and indirect GVA grows year on year, reaching around £224 million in 2035 and £345 million in 2040. Between 2026 and 2040, the cumulative loss amounts to approximately £2.5 billion. This reflects economic output foregone across UK installation, manufacturing and supply-chain activity as a result of lower heat pump deployment, net of the GVA generated through replacement boiler installations.

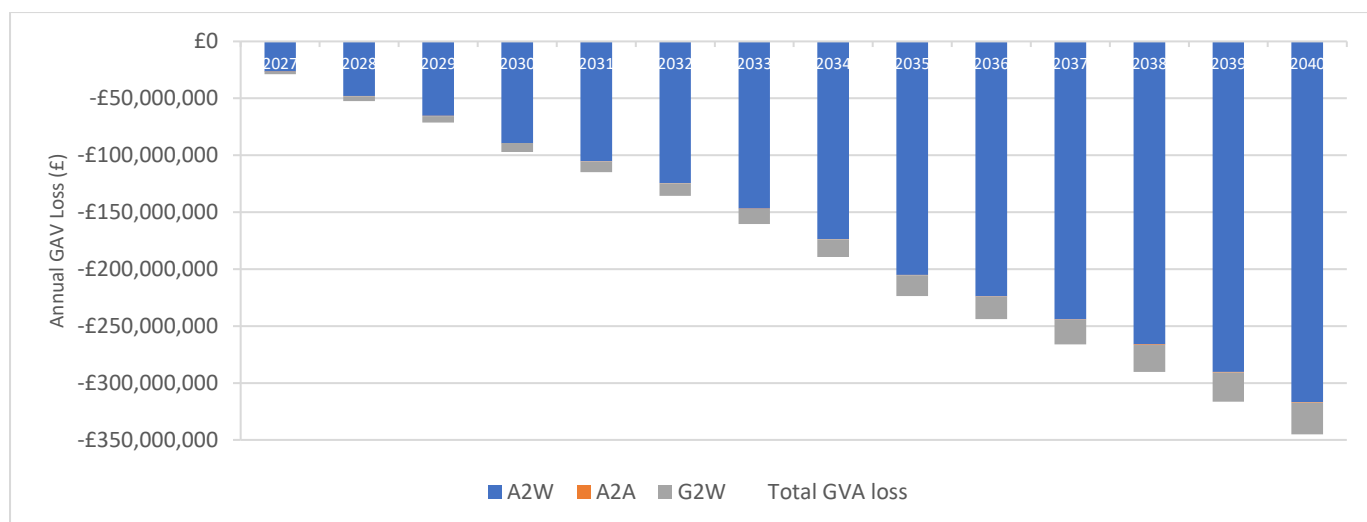


Figure 5 - Annual GVA Loss under a 5% VAT scenario

Key message: Lower heat pump deployment under a 5% VAT scenario is projected to reduce economic activity across the installation, manufacturing and supply chain, limiting the economic benefits that would otherwise be generated by growth

d. Workforce impacts

i. Job losses

A reduction in heat pump demand would reduce the need for installers and other roles involved in the deployment of domestic heat pumps. The SEA used Talan's heat pump workforce model, which assesses the relationship between annual heat pump deployment and workforce requirements.

The model was used to calculate workforce requirements under both the baseline scenario and the VAT increase scenario. The difference in workforce requirements between the two scenarios was then used as a proxy for the employment impact associated with lower heat pump deployment. This approach estimates the number of jobs supported under each scenario rather than assuming workforce reductions occur immediately or on a one-for-one basis.

Table 1 - Workforce Model Definitions

FTE (Full-Time Equivalent): The workforce requirement expressed as if individuals worked full-time in their respective roles. For qualified heat pump installers, this represents a theoretical 100% labour utilisation

Active Individuals: The number of trained individuals actually working on heat pump installations and maintenance, allowing for the fact that they may spend only part of their working time on these activities.

Trained Individuals: The total number of individuals the sector needs to train to install heat pumps, including both those who become active and those who do not. This exceeds the active requirement because not everyone who successfully completes relevant training goes on to install heat pumps

Figure 6 illustrates the reduction in workforce requirements associated with lower heat pump deployment. As demand for heat pumps falls, fewer installers are required to undertake installation activity, resulting in fewer jobs being supported across the sector.

The modelling indicates that a reversion to 5% VAT on heat pumps would reduce demand for heating engineers and plumbers by almost 1,800 full-time equivalent (FTE) roles by 2035, rising to nearly 3,000 FTE roles by 2040 compared with the baseline scenario. The impact is also reflected in the number of active and trained installers supported by the market. By 2035, the sector is estimated to support around 2,500 fewer active individuals and more than 3,300 fewer trained individuals, increasing to approximately 4,100 and 5,500 respectively by 2040.

We would expect these findings to be considered alongside Government and industry efforts to grow the heat pump workforce in anticipation of increased deployment. Lower demand could reduce the number of jobs and training opportunities for support by the market, and potentially slowing workforce expansion and limiting the sector's capacity to meet future heat pump deployment ambitions.

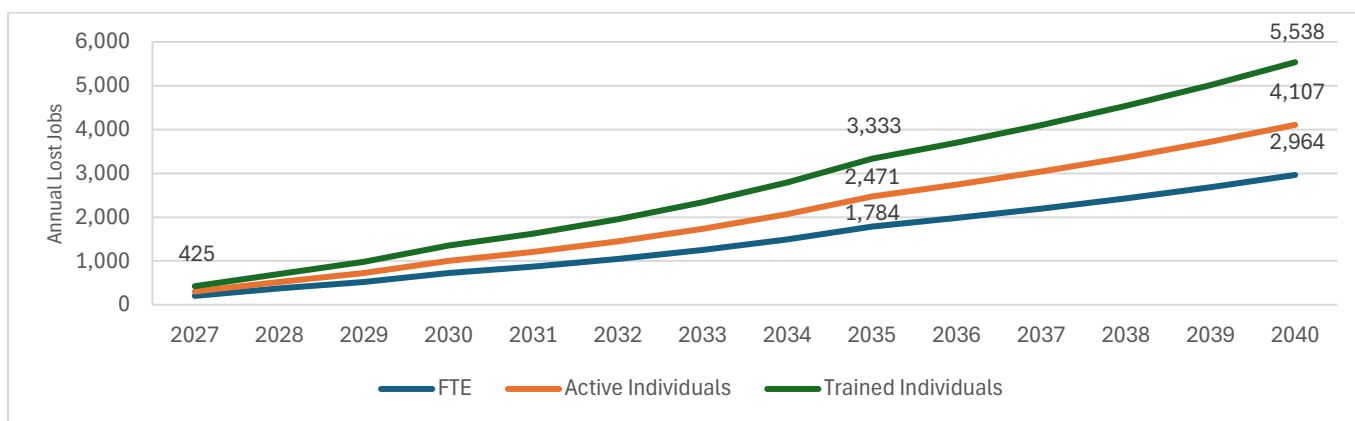


Figure 6 - Heating Engineer & Plumber Job Loss

Key Message: A return to 5% VAT is projected to reduce the number of jobs and training opportunities supported by the heat pump market, weakening incentives for businesses to invest in workforce growth. As the Government and industry seek to expand the installer base needed to support heat pump deployment, lower demand risks slowing workforce development and reducing the sector's capacity to meet future heat decarbonisation ambitions.

ii. Installer income loss

This analysis estimates the reduction in installer revenues associated with lower heat pump deployment. As heat pumps typically represent higher-value installation projects than boiler replacements, a shift away from heat pump installations is expected to reduce revenue opportunities for installers across the assessment period.

The modelling indicates that installer income losses grow steadily over time as the gap in heat pump deployment between the baseline and 5% VAT scenarios widens. Annual lost revenues are estimated to exceed £44 million by 2035, increasing to almost £69 million by 2040. These losses represent foregone economic activity that would otherwise have been generated through heat pump installation work.

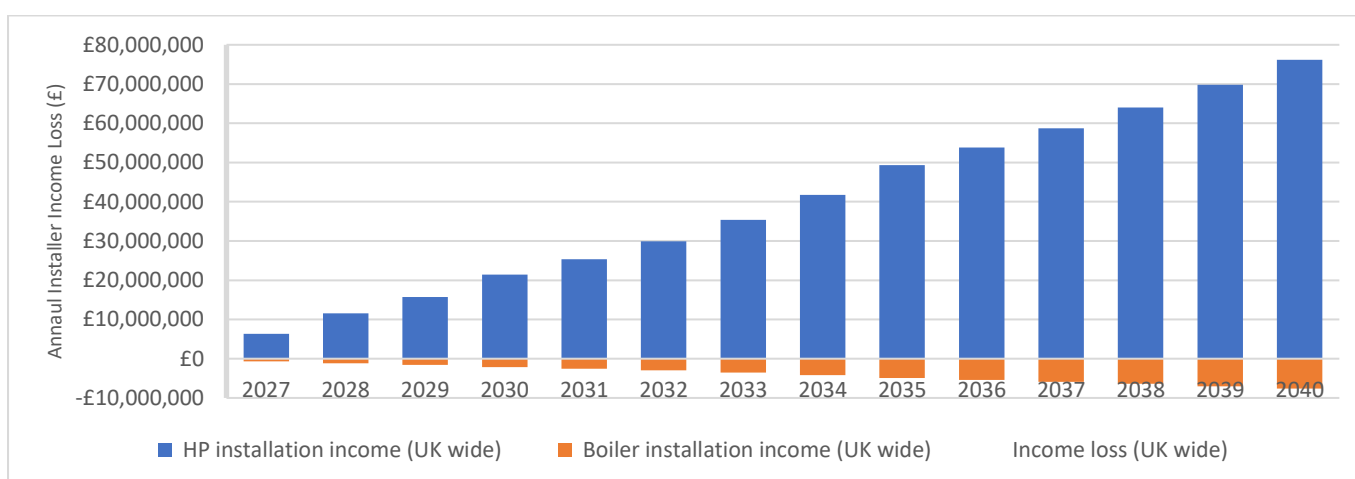


Figure 7 - Installer Income Loss (UK wide)

Key Message: Lower heat pump deployment is projected to reduce revenue opportunities for installers across the assessment period, weakening the commercial incentives for businesses to invest in workforce growth, training and capacity expansion.

e. Treasury Revenue Impacts VAT receipts

Using a waterfall chart, Figure 8 illustrates the methodology used to estimate the Treasury's net VAT position and the key components included within the modelling. It also provides a breakdown of VAT receipts in 2032, when the overall net economic impact is projected to turn negative.

Treasury impact of a 5% VAT rate on heat pumps, 2032

£196.1m of extra VAT receipts is outweighed by lost economic activity and carbon value, leaving a net loss of £7.1m

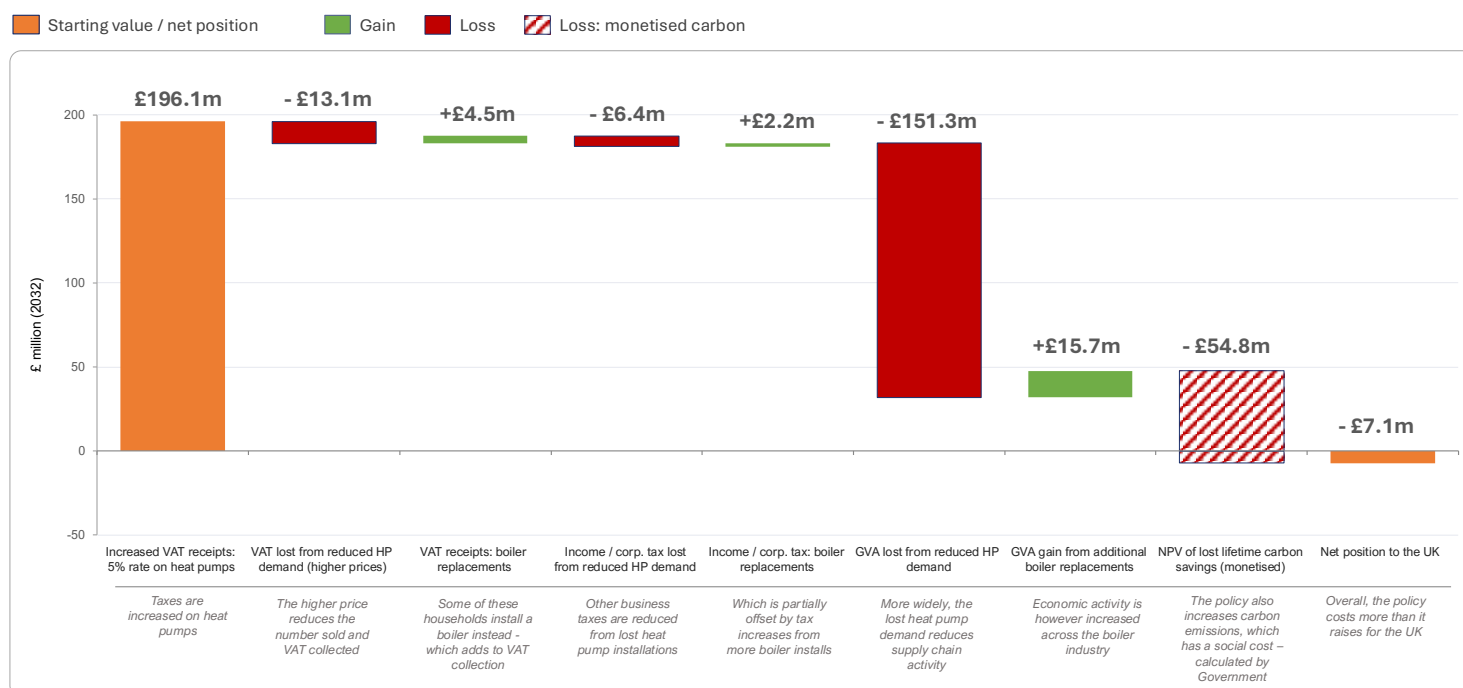


Figure 8 - VAT Model – Waterfall Illustration of Treasury VAT breakdown in 2032, where overall net economic impact is projected to turn negative.

A return to 5% VAT on heat pumps would generate additional receipts for the Treasury in every year of the forecast period. The policy is estimated to generate approximately £306 million in 2035, rising to around £475 million by 2040. Cumulatively, additional VAT receipts amount to approximately £3.5 billion by 2040.

The majority of these receipts arise from VAT collected on heat pump installations that continue to proceed despite the higher rate. This is partially offset by lower tax revenues elsewhere in the supply chain as a result of reduced heat pump deployment and associated economic activity. The analysis also includes VAT receipts associated with additional boiler installations resulting from displaced heat pump demand.

A further component of the fiscal impact arises from households that retain or install gas boilers instead of heat pumps. In these cases, higher gas consumption generates additional VAT receipts over time. This element is illustrated separately in Figure 9.

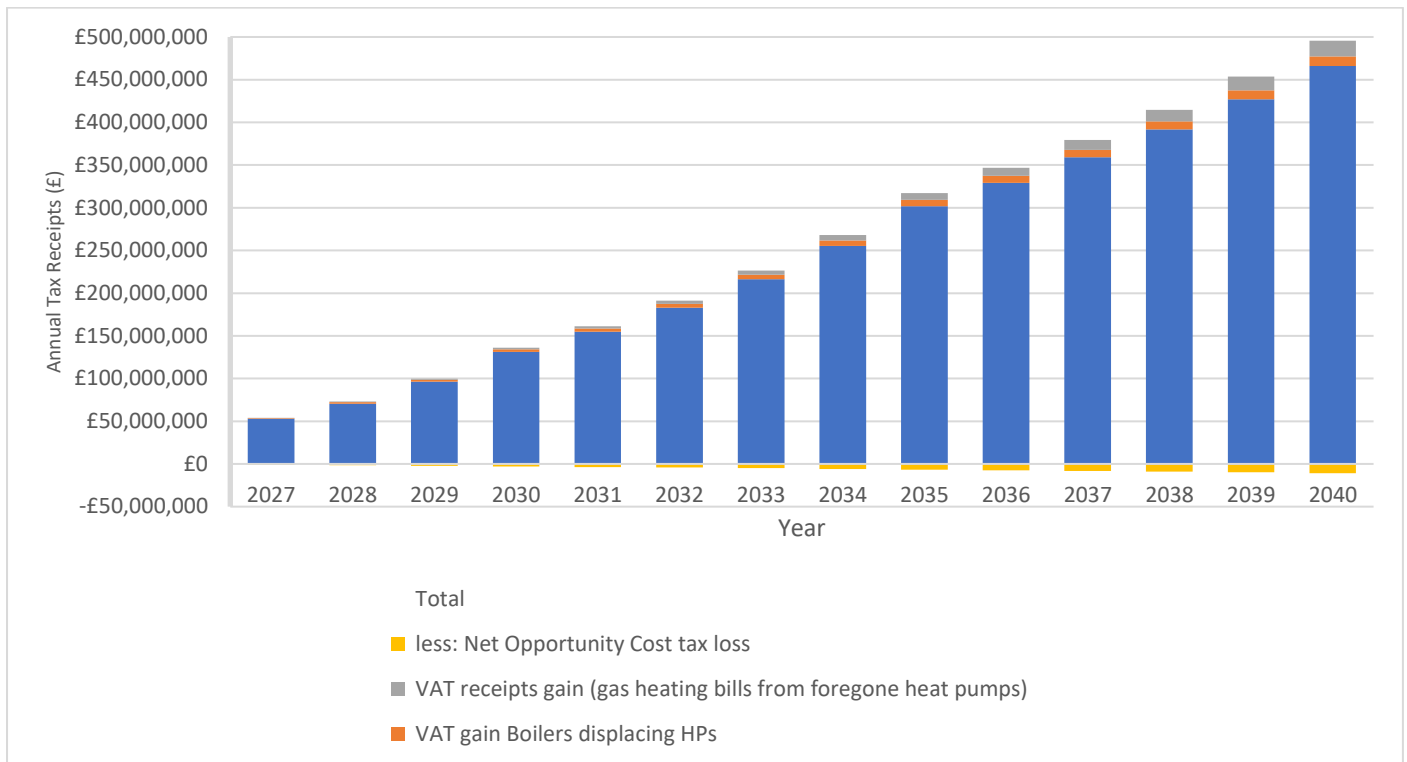


Figure 9 - HM Treasury VAT Receipts from Heat Pump demand (5%)

Figure 10 combines the three principal impacts captured within the analysis: additional VAT receipts received by the Treasury, the loss of economic output resulting from lower heat pump deployment, and the social cost of carbon (SCC) associated with additional emissions from households that continue to rely on gas heating.

While the return to 5% VAT generates additional tax revenues, these benefits are increasingly outweighed by the economic and environmental costs associated with lower heat pump uptake. In the early years of the forecast, the additional VAT receipts exceed the combined GVA and carbon impacts. However, as the market grows and the number of foregone heat pump installations increases, the loss of economic activity and additional carbon damages rise more rapidly than the fiscal gains.

The modelling indicates that the net economic impact becomes negative from 2032 onwards, with the annual economic cost increasing in each subsequent year of the forecast period. By 2040, the combined losses from reduced economic activity and additional carbon emissions substantially exceed the additional VAT revenues generated by the policy.

Using a 3.5% discount rate, the net present value of the policy over the period 2027-2040 is estimated at -£380.5 million (in 2026 prices), suggesting that when both economic and carbon impacts are considered alongside fiscal revenues, the overall effect of reintroducing 5% VAT on heat pumps is negative.

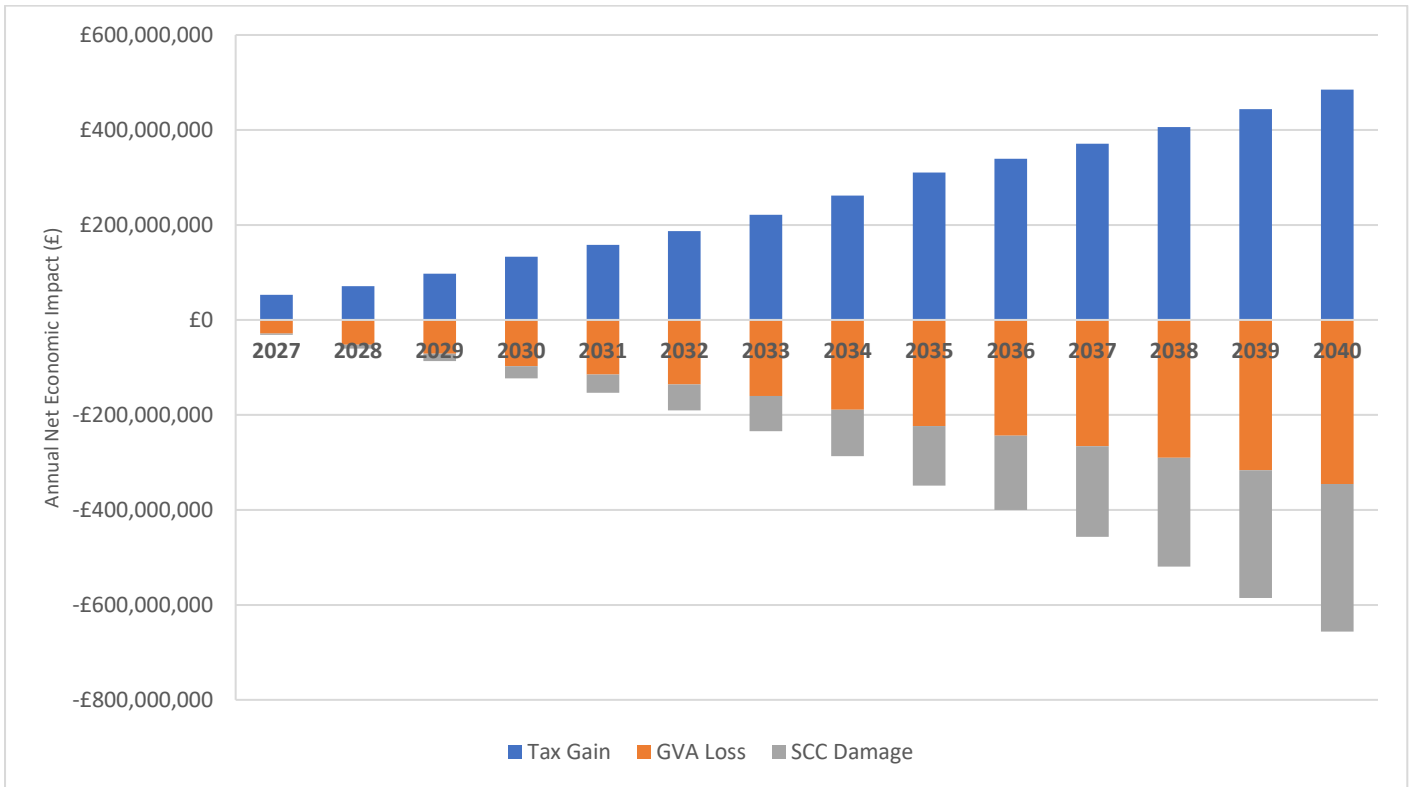


Figure 10 – Annual Net Economic Impact to HM Treasury under a 5% VAT reversion

Key Message: A return to 5% VAT is projected to generate additional Treasury revenues, but these gains are ultimately outweighed by the economic and environmental costs of lower heat pump deployment. From 2032 onwards the overall impact becomes negative, resulting in an estimated net economic loss of £380.5 million across the assessment period.

4. ECONOMIC IMPACTS AND MODELLING CONSIDERATIONS

Our modelling indicates that reintroducing 5% VAT would generate additional fiscal revenues for the Treasury, but at the cost of lower heat pump deployment and reduced economic activity across the supply chain. The results demonstrate that, while tax receipts increase over time, so too do the associated reductions in installations, economic output and workforce demand.

The analysis suggests that the wider economic and environmental costs of reintroducing VAT outweigh the additional revenues generated over the appraisal period. Applying a 3.5% discount rate, the policy results in a net present value of approximately -£380.5 million between 2027 and 2040. Table 2 summarises the headline findings of the assessment.

Table 2 – Headline Numbers

	2027–30	2031–40	Total
Foregone Heat Pump Installations	~82,000	~283,000	~365,000
GVA Loss from lost heat pump deployment	£250m	£2,286m	£2,535m
Overall Net Impact (VAT, GVA and Social Cost of Carbon)			-380.5m

The impacts of reintroducing VAT extend beyond deployment alone, affecting economic activity, workforce demand, skills development and installer capacity across the heat pump supply chain.

a. VAT intake through to 2030

Most of the projected VAT revenue associated with reintroducing a 5% rate would not be realised until after 2030, when the market is expected to be substantially larger. Over the period currently under consideration, however, the policy would raise around £353 million.

That revenue must be weighed not only against the impact on deployment, but also against the wider economic and environmental costs associated with lower heat pump uptake. When the additional VAT receipts are compared against lost economic output and the social cost of increased carbon emissions, the overall economic impact of the policy is negative over the appraisal period. As the market grows, the additional VAT revenue generated by a tax increase rises, but so too does the number of installations that may be deterred, the reduction in economic activity and the impact on employment and workforce development across the supply chain.

In the near term, the £353 million revenue gain is modest relative to the £15 billion committed through the Warm Homes Plan. Maintaining 0% VAT would cost around 5% of programme spending while helping to ensure that tax policy and public investment are working towards the same objective: reducing the cost and promoting the uptake of home energy upgrades. Reinstating VAT risks creating a situation where one policy lowers costs while another increases them.

b. Incorporating wider benefits

The wider benefits of maintaining the relief may also be greater than those captured in our modelling. Manufacturers, investors and installers make decisions based on expectations of future market growth and policy stability. The prospect of higher costs from 2027 is likely to influence investment, recruitment and workforce development decisions well before the policy takes effect, creating market impacts that are not reflected in the modelled estimates.

Furthermore, the analysis focuses primarily on direct market impacts and associated GVA effects. It does not fully capture wider dynamic benefits that can arise from sustained market growth, including increased competition, supply chain development, economies of scale, learning effects, workforce development and productivity improvements.

As a result, the economic impacts presented in this report are likely to be conservative. A larger and more stable heat pump market could deliver additional benefits through innovation, investment and supply-chain expansion that are difficult to quantify but may be diminished if deployment growth is slowed by higher upfront costs.

c. Heat Pump Case Study

While heat pumps are a useful case study given their central role in government's decarbonisation objectives and their status as one of the largest markets for energy-saving materials, they are also a market that remains heavily influenced by government subsidy. At present, demand is shaped not only by upfront costs but also by support schemes such as the Boiler Upgrade Scheme. By contrast, many of the other measures on the approved list do not benefit from the same level of financial support and may therefore be more sensitive to any increase in consumer costs.

Nevertheless, the analysis illustrates the potential impact of a VAT increase on heat pump deployment, including foregone installations and associated GVA losses. These impacts become increasingly significant as the market scales up, particularly at a time when the UK is seeking to reduce its reliance on gas, strengthen domestic manufacturing and support job creation.

The findings therefore provide a useful indication of the potential scale of impacts arising from a VAT change. While the policy raises additional fiscal revenues, the modelling suggests that these gains are ultimately outweighed by reduced economic activity and higher carbon costs, resulting in a negative overall economic impact. Given that many other qualifying energy-saving materials receive less direct support than heat pumps, the wider implications of reinstating VAT could be more significant than those presented in this case study.

5. STRATEGIC POLICY IMPLICATIONS

a. In parallel with the Warm Homes Plan

The Government has confirmed funding for the Warm Homes Plan and Boiler Upgrade Scheme through to 2029/30, with around £15 billion committed to supporting home energy upgrades by 2030. By contrast, the current VAT relief for Energy Saving Materials is due to expire in March 2027. This creates a potential policy misalignment whereby public spending continues to encourage deployment while the tax system increases the cost of installation for households.

Extending the relief to at least 2030 would align tax policy with the Government's wider investment programme and provide greater certainty for consumers, installers and manufacturers. It would also give industry a consistent signal across spending, regulation and taxation during a critical period for market growth.

By 2030, government will have a stronger evidence base on deployment trends, market maturity and consumer responsiveness to price changes. Any decision on the long-term future of the relief could therefore be based on the observed market outcomes as opposed to assumptions about how the market may respond.

b. Consumer Implications

VAT is applied to the full installation cost, including both equipment and labour. A return to 5% VAT would add around £600 to £700 to the cost of a typical air source heat pump installation, around £250 to a solar and battery system, and smaller amounts to insulation and heating controls. For households undertaking a broader retrofit, such as combining a heat pump with fabric improvements, the additional cost could easily exceed £1,000. This increase is reflected directly in the upfront quote seen by the customer at the point of purchase, at a time when upfront cost remains one of the strongest determinants of uptake.

Most measures covered by the relief are installed outside government support schemes. While grants and obligations support specific households and technologies, most insulation, glazing and heating control upgrades are funded directly by homeowners and landlords. For many of these measures, the VAT relief represents the only form of fiscal support available.

The impact of removing the relief would also vary between technologies. Heat pump demand is partially insulated by the Boiler Upgrade Scheme, allowing households to offset some of the additional cost through the £7,500 grant. Most other energy-saving measures do not benefit from equivalent support and are therefore fully exposed to any increase in installation costs. This is particularly significant given the role these measures play in reducing energy demand, lowering bills and improving whole-building performance.

The relief also supports landlords undertaking energy efficiency improvements in anticipation of higher minimum energy efficiency standards, with the benefits ultimately flowing through to tenants via warmer, more efficient homes. More broadly, it helps sustain demand in the able-to-pay market, supporting the installer base, manufacturers and supply chains that wider government programmes rely upon. With landlords already facing significant investment requirements under proposed Minimum Energy Efficiency Standard reforms, removing the relief would add to existing cost pressures at a time when the sector is preparing for substantial expenditure. This comes alongside wider pressures on landlord viability, which may further contribute to some exiting the private rented sector altogether.

A wider consideration is the role of demand reduction within the energy transition. While increasing low-carbon electricity generation is essential, reducing energy demand remains one of the most cost-effective ways of improving energy security, lowering system costs and cutting consumer bills. Many of the measures covered by the relief

contribute directly to these objectives, meaning the impact of a VAT increase extends beyond individual installations and into the broader efficiency of the housing stock.

c. Market and supply chain implications

Beyond its impact on individual consumers, the relief supports market growth by maintaining demand across the able-to-pay sector. Stable demand supports installer recruitment, training and accreditation, while giving manufacturers greater confidence to invest in UK production capacity and supply chains.

This is particularly important during a period when government is seeking to grow domestic supply chains, attract manufacturing investment and expand workforce capacity in support of the Warm Homes Plan. A reduction in demand may not only affect current deployment but could also slow investment decisions and prolong the time required to build the capacity needed to meet future targets. Table 3 highlights the key risks across the supply chain and identifies the stakeholders that bear them.

Table 3 – Risks across stakeholders

Risk	Who bears it	Explanation
Perverse policy incentive	Government	If electricity remains zero-rated while Energy Saving Materials revert to 5% VAT, the tax system would increase the cost of measures that reduce electricity consumption and improve energy efficiency, creating a misalignment between fiscal policy and wider decarbonisation objectives.
Market disruption	Installers, consumers	Demand may be pulled forward ahead of the policy change, followed by a period of weaker activity. This can create cash-flow pressures for installers, increase administrative burdens and lead to disputes where projects span the implementation date.
Reduced workforce capacity	Installers, delivery programmes	Lower demand could reduce the number of installers and wider supply-chain roles supported by the market. Businesses may scale back investment in recruitment, training and accreditation, making it more difficult and costly to rebuild capacity in future.
Deterred manufacturing investment	Manufacturers, Government	Investment decisions are based on expectations of future market growth. Higher installation costs and lower expected demand could weaken the case for additional investment in UK manufacturing capacity and supply chains.
Public spending partially offset	Government, consumers	A tax increase raises the cost of installations at the same time as government is investing £15 billion to encourage uptake. This reduces the effective value of public spending directed towards home energy upgrades.
Increased compliance complexity	Small installers	The current relief simplifies VAT treatment for qualifying measures. Reintroducing different VAT treatments may increase administrative burdens and create uncertainty around the treatment of associated works.
Increased cost	Consumers	Households undertaking energy efficiency improvements would face higher upfront costs. For those funding upgrades themselves, particularly in the able-to-pay market, this may reduce affordability and discourage investment.

6. CONCLUSION & POLICY RECOMMENDATIONS

Our analysis sought to answer two key questions:

- What impact would be reintroducing 5% VAT have on heat pump demand and deployment?
- How does the VAT revenue generated for the Treasury compare with the economic value and Gross Value Added supported across the heat pump supply chain?

The analysis demonstrates that reintroducing 5% VAT on Energy Saving Materials would increase tax receipts for the Exchequer, but these additional revenues come at the expense of lower deployment, reduced economic activity and weaker supply-chain growth.

Using heat pumps as a case study, the modelling indicates that reintroducing 5% VAT could result in approximately 365,000 fewer heat pump installations between 2027 and 2040, alongside a £2.5 billion reduction in Gross Value Added. By 2040, lower deployment could result in demand for almost 3,000 fewer full-time equivalent roles, around 4,100 fewer active installers and approximately 5,500 fewer trained installers being supported by the market. Installer revenues are also estimated to be almost £69 million lower per year by 2040.

Crucially, when additional VAT receipts are assessed alongside the loss of economic activity and the carbon costs associated with slower deployment, the overall impact of the policy is negative. Applying a 3.5% discount rate, the modelling produces a net present value of -£380.5 million over the period 2027-2040. This suggests that the wider economic and environmental costs of reintroducing VAT outweigh the fiscal benefits generated for the Treasury.

These impacts become increasingly significant as the market expands. While the fiscal benefits of reintroducing VAT increase over time, so too do the associated reductions in deployment, economic activity, employment and supply chain growth.

This is particularly important in the context of the Government's wider objectives to accelerate low-carbon heating, improve home energy efficiency, tackle fuel poverty, strengthen domestic manufacturing and reduce dependence on imported fossil fuels. The period to 2030 is expected to be especially important for market development, with manufacturers, installers and investors making decisions based on expectations of future demand and policy stability.

Maintaining the relief would better align taxation policy with the objectives of the Warm Homes Plan and the Government's wider decarbonisation agenda. It would provide certainty during a critical period for market growth while creating a natural review point at the end of the decade, when more evidence will be available on market maturity, consumer behaviour and deployment trends.

We therefore recommend that Government:

- **Extend the 0% VAT relief for Energy Saving Materials until at least 2030**, aligning it with the funding period for the Warm Homes Plan and Boiler Upgrade Scheme.
- **Confirm the extension at the earliest opportunity**, providing consumers, installers, manufacturers and investors with greater policy certainty.
- **Maintain consistency between energy and energy-efficiency taxation**, avoiding a situation in which measures that reduce energy demand attract VAT while electricity remains zero-rated.
- **Retain the current breadth of qualifying Energy Saving Materials**, recognising that the impact of a VAT increase would be felt across heat pumps, solar PV, insulation, glazing and heating controls.
- **Consider whether additional energy-saving technologies should be brought within scope of the relief**, where doing so would support wider objectives around energy efficiency, electrification and carbon reduction.
- **Undertake a formal review before 2030**, using observed deployment data and market evidence to assess the long-term case for continuing or amending the relief.

- **Strengthen the evidence base for other qualifying technologies**, providing greater visibility of installation trends and market uptake beyond government-funded programmes.

ⁱ HM Revenue & Customs. Energy-saving materials and heating equipment (VAT Notice 708/6) Available [here](#)

ⁱⁱ DESNZ. 2026. Warm Homes Plan. Available [here](#)

ⁱⁱⁱ Talan proprietary data – [Talan.com](#)

^{iv} DESNZ. 2026. Impact of heat pump costs on uptake: a discrete choice experiment. Available [here](#)

^v HPA UK. From Carbon to Competitiveness: The UK opportunity associated with decarbonising residential heating. Available [here](#)

^{vi} Eunomia. 2023. The Cost of Heating Appliances: A Comprehensive UK Database. Available [here](#)

^{vii} HPA. 2026. From Carbon to Competitiveness: The UK opportunity associated with decarbonising residential heating. Available [here](#)

^{viii} Eunomia. 2023. The Cost of Heating Appliances: A Comprehensive UK Database. Available [here](#)

^{ix} DESNZ. 2026. Boiler Upgrade Scheme Evaluation: Wave 2 Property Owner Survey Data Tables. Available [here](#)