

Research Briefing

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VAT on solar panels and other energy-saving materials

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Summary

[A zero-rate of VAT on the installation of energy-saving materials \(ESMs\)](#), including solar panels, in residential accommodation, was introduced on 1 April 2022. At the time, it only applied to England, Scotland, and Wales.

Following [a new agreement between the UK and the EU](#), the zero-rating was also [implemented in Northern Ireland on 1 May 2023](#).

The relief is set to last until 31 March 2027. On 1 April 2027, the VAT rate on such supplies will return to 5% (the reduced rate).

UK VAT law is consolidated in the [Value Added Tax Act 1994](#). These changes were implemented through statutory instruments: [The Value Added Tax \(Installation of Energy-Saving Materials\) Order 2022](#), and [The Value Added Tax \(Installation of Energy-Saving Materials\) Order 2023](#), which amended the 1994 Act.

1 VAT overview

Value Added Tax (VAT) is charged on the supply of all goods and services, unless otherwise specified.

The VAT Act (VATA) 1994 sets the main VAT rate at 20%.¹ It also makes provision for a reduced rate of 5% and a zero-rate (0%) on several goods and services.² The list of goods and services liable for the reduced rate are set out in Schedule 7A of the Act, and goods and services that are VAT zero-rated are set out in Schedule 8 (see the Appendix of this paper for full details).

2 VAT treatment of the installation of energy-saving materials

2.1 England, Scotland, and Wales

On 1 April 2022, the installation of energy-saving materials (ESMs) in residential accommodation became VAT zero-rated in England, Scotland, and Wales. The rate will remain at this level until 31 March 2027.

¹ [VAT Act 1994, s2](#)

² [VAT Act 1994, s29A](#) and [s30](#)

This was announced during the 2022 Spring Statement. At the time, then Chancellor Rishi Sunak said that the Government would create a new VAT zero-rate on the installation of energy-saving materials in Great Britain. Additionally, he also said that the installation of water and wind turbines would be zero-rated too. Both changes were possible because the UK had left the EU. The then Chancellor added that, due to the Northern Ireland protocol, the VAT zero-rating could not immediately apply to Northern Ireland:

Thanks to Brexit, we are no longer constrained by EU law, so I can announce that for the next five years, homeowners having materials such as solar panels, heat pumps and insulation installed will no longer pay 5% VAT; they will pay zero. We will also reverse the EU's decision to take wind and water turbines out of scope and zero rate them as well—and we will abolish all the red tape imposed on us by the EU. [...]

This policy highlights the deficiencies in the Northern Ireland protocol. We will not immediately be able to apply it to Northern Ireland, but we will be raising it with the Commission as a matter of urgency, and I want to reassure Members from Northern Ireland that the Executive will receive a Barnett share of the value of the relief until it can be introduced UK-wide.³

How was this legislated?

Following the announcement, the Government introduced the [Value Added Tax \(Installation of Energy-Saving Materials\) Order 2022](#) on 23 March 2022, and it came into force as law on 9 June 2022.⁴

The order introduced a new Group 23 in Schedule 8 to VATA 1994, adding ESMs to the list of goods and services which are VAT zero-rated. It also amended Group 2 in Schedule 7A, to maintain the installation of ESMs in Northern Ireland at the 5% reduced rate.

2.2

Northern Ireland

Whilst the VAT reduction on the installation of ESMs was implemented in Great Britain but not in Northern Ireland, the Northern Ireland Executive received a cash-equivalent share via the Barnett formula.⁵ This arrangement ended when the relief was introduced in Northern Ireland on 1 May 2023.⁶

On 27 February 2023, Prime Minister Rishi Sunak announced to the Commons that a deal had been reached between the UK and the EU on changes to the

³ HC Deb [23 March 2022](#), cc338-339

⁴ [The Value Added Tax \(Installation of Energy-Saving Materials\) Order 2022, SI 2022/361](#)

⁵ For further information on the Barnett formula, see the Library briefing on the [Barnett formula and fiscal devolution](#)

⁶ HM Treasury, [Spring Statement 2022](#), GOV.UK, 23 March 2022

operation of the Northern Ireland protocol. The agreement is called the ‘Windsor Framework’.⁷

The UK Government laid out the proposed changes to the protocol in a command paper. A specific provision in the Framework ensures that “Northern Ireland will benefit from the same VAT and alcohol taxes as apply in the rest of the United Kingdom.”⁸ Changes to Annex 3 of the protocol will ensure that changes implemented to VAT in Great Britain (such as the zero-rating of ESMs in residential accommodation) will also apply to Northern Ireland.

The Library briefing on the [Windsor Framework](#) has more information on this.⁹

How was this legislated?

To effect this change, the Government laid the [Value Added Tax \(Installation of Energy-Saving Materials\) Order 2023](#) on 29 March 2023. It came into force on 1 May 2023. Therefore, the installation of ESMs in Northern Ireland became zero-rated for VAT purposes from 1 May 2023 until 31 March 2027.¹⁰

The order amends Group 23, Schedule 8 of VATA 1994 to zero-rate the installation of ESMs in Northern Ireland from 1 May 2023 to 31 March 2027.

2.3 What will the rates become on 1 April 2027?

On 1 April 2027, at the end of the relief period, the VAT rate on the installation of ESMs will return to their previous level, the reduced rate of 5%.¹¹

This provision is legislated in the 2022 and 2023 orders. If the Government wishes to extend the zero-rating on the installation of ESMs, further legislation would have to be introduced.

2.4 Policy cost

The Treasury has estimated that the VAT zero-rating of ESMs in Great Britain will cost the Government a total of £280 million by 2026/27.¹²

⁷ HC Deb [27 February 2023](#), cc570-577

⁸ HM Government, [The Windsor Framework: A new way forward](#) (PDF), GOV.UK, February 2023, pp13-14

⁹ Commons Library Briefing CBP-9736, [Northern Ireland Protocol: The Windsor Framework](#)

¹⁰ [The Value Added Tax \(Installation of Energy-Saving Materials\) Order 2023. \(SI 376/2023\)](#)

¹¹ HMRC, [Energy-saving materials and heating equipment \(VAT Notice 708/6\)](#), GOV.UK, 1 May 2023

¹² HM Treasury, [Spring Statement 2022 – Policy Costings](#) (PDF), GOV.UK, March 2022, p10

HMRC published a policy paper on the application of the zero-rating in Northern Ireland on 29 March 2023, stating the additional cost to be “negligible”.¹³

3

Meaning of “installation” of ESMS

Group 23, Schedule 8 of VATA 1994 makes provision for VAT relief to be applied to:

1. Relevant supplies of services of installing energy-saving materials in residential accommodation.
2. Relevant supplies of energy-saving materials by a person who installs those materials in residential accommodation.¹⁴

HMRC has clarified that VAT relief is only applicable to the supply of energy-saving materials in certain situations. [VAT Notice 708/6 on energy-saving materials and heating equipment](#) also makes clear that “if you supply energy-saving materials without installing them (that is, only those materials) your supply is standard-rated across the UK.”¹⁵

For instance, if an individual was to purchase solar panels themselves, the supply of solar panels would be liable for VAT at the standard rate of 20%. VAT Notice 708/6 states that “the sale of energy-saving materials by a retailer is standard-rated.”¹⁶

If the individual was to then have a company install the solar panels, the cost of the installation would be zero-rated. On the other hand, if the business who was installing the solar panels was also supplying the panels themselves, both the supply of the panels and their installation would be zero-rated.

A more recent consultation published by HMRC also provides a broad overview of the current situation of the relief in the introduction.¹⁷

Additionally, the VAT zero-rating only applies to residential accommodation. Businesses and charities are currently not eligible for this relief.

¹³ HMRC, [The Value Added Tax \(Installation of Energy-Saving Materials\) Order 2023](#), GOV.UK, 29 March 2023

¹⁴ [VAT Act 1994, sch 8, group 23](#)

¹⁵ HMRC, [Energy-saving materials and heating equipment](#) (VAT Notice 708/6), GOV.UK, 1 May 2023

¹⁶ As above

¹⁷ HMRC, [Call for evidence: VAT energy saving materials relief – improving energy efficiency and reducing carbon emissions](#), GOV.UK, 15 March 2023

Further information on the application of the VAT relief is provided by an HMRC internal manual on VAT on ESMs and Grant-Funded Heating Supplies.¹⁸

4 Recent developments

HMRC launched a call for evidence on how to potentially expand the coverage of the VAT relief. The Government aimed to gather evidence on:

- Introducing a VAT zero-rate on the installation of additional ESM technologies than the ones currently listed (full list in the Appendix of this paper). The consultation states that the list of eligible technologies has remained not changed since 2006.
- Whether the installation of ESMs should be zero-rated for buildings exclusively used for a relevant charitable purpose. This relief existed in the UK prior to 2013, when the European Commission stated that the relief was not compatible with EU law.¹⁹

HMRC [published the consultation](#) on 15 March 2023, and it closed on 31 May 2023.²⁰

The Environmental Audit Committee published an article on 31 May, welcoming the consultation.²¹ In a letter to Grant Shapps, the Secretary of State for the Department of Energy Security and Net Zero, members of the committee had asked the Government to remove VAT on battery storage when it was installed rooftop solar systems, either at the same time as the systems, or retrospectively. Answering correspondence from the committee, the Secretary of State said that battery storage “supplied as part of installation of a qualifying material” (such as solar panels) would be eligible for the VAT zero rate. As currently battery storage is not included in the list of qualifying materials, if they were installed as a standalone product (for instance, retrospectively), they would be liable for VAT at the standard rate. He then encouraged the committee to share evidence advocating for the inclusion of battery storage as a qualifying material of its own via the call for evidence.²²

¹⁸ HMRC, [VAT Energy-Saving Materials and Grant-Funded Heating Supplies](#), GOV.UK, updated 5 February 2023

¹⁹ HMRC, [Call for evidence: VAT energy saving materials relief – improving energy efficiency and reducing carbon emissions](#), GOV.UK, 15 March 2023

²⁰ HMRC, [VAT energy saving materials relief – improving energy efficiency and reducing carbon emissions](#), GOV.UK, 15 March 2023

²¹ Environmental Audit Committee, [VAT rules could change on battery storage when installed after solar panels](#), UK Parliament, 31 May 2023

²² Department for Energy Security and Net Zero, [Technological innovations and climate change: onshore solar power](#) (PDF), GOV.UK, 17 May 2023

5 Previous VAT status of solar panels and other energy-saving materials

The HMRC consultation [on extending the scope of the VAT relief](#) launched on 15 March 2023 includes a history of the VAT relief on ESMs in Annex A. This is summarised in the table below.

Table 1 History of the VAT relief for ESMs	
Time	What happened
1998	The VAT (Reduced Rate) Order 1998 creates a 5% VAT reduced rate for the grant-funded installation of ESMs in the homes of people on specific benefits.
2000	From 1 April, the scope of the reduced rate is extended to the supply and installation in all residential accommodation and charity buildings
2002	On 1 June, the relief is extended to grant-funded installation of other technologies (such as factory-insulated hot water tanks)
2013	From 1 August, the reduced rate is withdrawn for installations in accommodation or charitable buildings. HMRC said the European Commission believed the UK's application of the reduced rate exceeded the limits imposed by the Principle VAT Directive 2006/12/EC. The UK accepts the EC view in terms of charities, but did not accept the view that its application of the reduced rate was beyond its legal authority ("ultra vires").
2014	the Court of Justice of the European Union (CJEU) rules that aspects of the UK's application of the reduced rate were ultra vires.
2019	Following years of negotiations, the UK removes wind and water turbines from its list of ESMs eligible for installation at a reduced VAT rate. The reduced rate remains in place for installations in residential accommodation, provided that the market value of the supply of the materials does not exceed 60% of the total cost (excluding VAT). If the cost exceeds 60%, only the labour cost is eligible for the reduced rate.
2020	On 31 December, the transition period ends, and the UK officially leaves the EU.
2022	In the Spring Statement 2022, the Government introduces a VAT zero rate on the installation of ESMs in Great Britain (including water and wind turbines) until 31 March 2027.
2023	Following a new agreement between the UK and the EU (the Windsor Framework), the VAT zero rate on ESM installation is extended to Northern Ireland from 1 May.

Source: HMRC, [Call for evidence: VAT energy saving materials relief – improving energy efficiency and reducing carbon emissions](#), GOV.UK, 15 March 2023

Appendix: VAT Act 1994, Schedule 8, Group 23

VATA 1994 lists what is considered an ESM for the purposes of VAT zero-rating in Group 23, Schedule 8:

- a) Insulation for walls, ceilings, roofs or lofts or for water tanks, pipes or other plumbing fittings;
- b) Draught stripping for windows and doors;
- c) Central heating system controls (including thermostatic radiator valves);
- d) Hot water system controls;
- e) Solar panels
- f) Wind turbines;
- g) Water turbines;
- h) Ground source heat pumps;
- i) Air source heat pumps
- j) Micro combined heat and power units
- k) Boilers designed to be fuelled solely by wood, straw or similar vegetal matter.²³

It also explains what can be described as “residential accommodation”

- a) A building, or part of a building, that consists of a dwelling or a number of dwellings;
- b) A building, or part of a building, used for a relevant residential purpose
- c) A caravan used as a place of permanent habitation; or
- d) A houseboat.²⁴

²³ [VAT Act 1994, as amended, sch 8](#)

²⁴ As above

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