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Plug-in solar: Regulatory amendment and interim product specification | REA response

About the REA

The REA is a not-for-profit body that represents renewable electricity, heat and transport, as well as Electric Vehicle charging infrastructure, Energy Storage and Circular Economy companies. Members encompass a wide variety of organisations, including generators, project developers, fuel and power suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are around 450 corporate members of the REA, making it the largest renewable energy and clean technology trade association in the UK. Our subsidiaries have around a further 6,000 members collectively our members employ over 80,000 people all across the UK.

Furthermore, the REA's subsidiary, REAL, runs industry governance and assurance schemes such as the Renewable Energy Assurance Scheme and Compost, Biofertiliser and Green Gas Certification Schemes, the latter accrediting energy used to supply green gas to the equivalent of 1 million homes.

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General comments

The REA welcomes the opportunity to respond to the Department for Energy Security and Net Zero (DESNZ) consultation on plug-in solar.

In general, we are supportive of the introduction of plug-in solar devices, which will play a part in the uptake of renewable generation in the UK. These devices can provide the benefits of renewable energy to those who would not otherwise have the space or finances, reducing electricity bills for homes and businesses and reducing reliance on fossil fuels. We note that consumers who use plug-in solar products can quickly start to reap the benefits of domestic renewables; this will help give more credence to other technologies such as rooftop solar, which would be a welcome development.

We also note that the Government is pursuing an ambitious timeline to introduce plug-in solar "within months", so that the benefits can be felt as soon as possible. However, care must be taken to ensure that the appropriate consumer protections are in place, so that the introduction of these products into the UK market does not lead to safety risks for users or other members of the public.

Responses to the consultation questions can be found below. The REA will continue to engage with our membership, DESNZ and the wider solar sector as and when plug-in solar is introduced into the UK.

Impact on Demand

If plug-in microgeneration shifts from being niche into a well-developed consumer market segment, there is likely to be an impact on the electricity grid. The REA is concerned that if the number of installations is very large, this additional source of demand-side generation (behind-the-meter) could potentially impact on Distribution Network Operators (DNOs) and their ability to balance the distribution network, as they will lack a clear picture of generation and demand. In order to address this, DNOs should receive information about the number and location of plug-in microgeneration installations. This could be achieved by requiring each plug-in solar product to be registered and linked to a UK address. Regardless, clarification is required on whether consumers must notify their DNO, or whether retailers/installers bear responsibility. If the responsibility lies with consumers, clear guidance must be provided on the process.

The UK should also continue to roll out smart meters to all households, in order to provide granular, real-time information about domestic energy usage to DNOs and the National Energy System Operator (NESO).

Salary Sacrifice

We are calling for the expansion of salary sacrifice to include the clean technologies and energy efficient components that make up the Energy Saving Materials list as part of a revised Warm Homes Plan.

Despite the lower cost of plug-in solar compared to rooftop solar, it is still estimated that the average price will be £400-600[1]. This does not include costs for obtaining an electrical safety check, or payments for installation. As such, the REA supports salary sacrifice as a method for improving the affordability of plug-in solar. Removing the high upfront cost and spreading it across equal monthly payments is a proven method of encouraging uptake. An example of this is in the field of electric vehicles (EVs); according to figures from the British Vehicle Rental and Leasing Association, salary sacrifice has led to a 47% increase in year-on-year sales of EVs.

Part 1: PSSR arrangements

1. *Do you agree with the proposed approach of amending the PSSR to allow plug-in solar to connect via a BS 1363 plug as a transitional measure pending any future changes to BS 1363?*

   In general, we agree with this approach. However, information must be provided to consumers explaining the difference between plug-in solar products and other household electrical devices; namely, plug-in solar devices move electricity in a different direction, from the solar panel and into the home's wiring system. This information must be accompanied by a strong recommendation that consumers obtain an electrical safety check (Electrical Installation Condition Report or EICR) to determine that the wiring system in their home is suitable and correctly maintained. We refer to the press release[2] by the Institution of Engineering and Technology (IET) from March 2026, which outlines this recommendation in more detail.

2. *In your view, is the proposed approach sufficiently clear that this update would only apply to plug-in solar products which meet the Interim Product Specification? If not, please set out any potential amendments that could provide further clarity.*

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[1] Estimate taken from the DESNZ analytical annex (June 2026) https://assets.publishing.service.gov.uk/media/6a301067d95ffddb05d4b08c/plug-in-solar-consultation-analytical-annex.pdf

[2] IET (24 March 2026) IET urges households to check electrical safety before using plug in solar products

Any plug-in solar device that is sold in the UK market must ensure it is compliant with the relevant regulations. This could be indicated with a UKCA or C E mark. A lack of certification would lead to the following issues:

- reduced consistency in technical standards
- lack of manufacturer accountability
- risk of unsupported products if manufacturers exit the market

Green Homes Dispute Resolution

As plug-in solar technology expands, it is clear that there will need to be a route for redress when things go wrong. The Green Homes Dispute Resolution (GHDR) service[3] operated by REAL could act as a fallback for plug-in panels issues that occur. The GHDR is an independent Alternative Dispute Resolution (ADR) body that resolves complaints relating to domestic renewable energy technologies. Approved by the Chartered Trading Standards Institute (CTSI) under the ADR Regulations 2015, GHDR provides consumers with an impartial and accessible route to resolve disputes without the need for court proceedings. Its process focuses on early resolution through mediation where possible, followed by adjudication where agreement cannot be reached, helping to deliver fair outcomes for both consumers and businesses.

As the market for plug-in solar products develops, GHDR provides an existing framework that could be extended to support consumers through early advice, mediation and independent dispute resolution. Its expertise in renewable energy technologies, established ADR procedures and sector-specific knowledge make it well placed to provide a proportionate mechanism for resolving disputes relating to plug-in solar systems, while helping to identify emerging consumer protection issues and inform future regulatory development.

3. *In your view, does allowing connection via a standard plug raise any specific safety concerns that are not addressed by the Interim Product Specification? If yes, please outline the potential concern(s).*

Allowing connection via a standard BS1363 plug introduces consumer safety risks that arise not only from the product design itself, but from how consumers are likely to understand and use these systems in practice. These products are

[3] Green Homes Dispute Resolution, accessed 2026 https://www.ghdr.org.uk/

likely to be perceived as simple domestic electrical appliances requiring minimal technical consideration. This creates a risk that consumers will not adequately assess whether their electrical installation is suitable. The introduction of plug-in connection should therefore be accompanied by clear, standardised consumer warnings and consistent guidance across all sales channels. It is important that safety requirements reflect not only the product specification, but also reasonably foreseeable consumer behaviour.

4. *Are you aware of risks that this update could be misinterpreted or misused (e.g. applied to other types of equipment)? If yes, please set out the potential risk(s) and how they might be mitigated.*

   There is a significant risk that permitting plug-in connections may reinforce the perception that plug-in solar devices are equivalent to standard household electrical appliances, rather than electrical generation systems with specific installation and usage constraints. To mitigate these risks, the regulatory framework should be supported by consistent consumer messaging and controls on sales and marketing language, ensuring that "plug and play" terminology does not mislead consumers regarding safety and suitability requirements.

   Finally, DESNZ must ensure that when amending the PSSR, it is clear that this update only applies to plug-in solar devices, and not to any other type of technology (e.g. plug-in batteries).

5. *Do you consider the proposed approach clear and enforceable for manufacturers, retailers, and regulators?*

   We are concerned about potential risks for manufacturers, retailers and installers of plug-in solar products. While the electrical safety study (accompanies the consultation document) provided by DESNZ provides some reassurance, there is a lack of information about how these products will interact with the wiring of the many different properties across the UK, and the risks that may develop after years of use. Currently, if a household electrical product (e.g. a washing machine) malfunctions and causes damage, consumers have a legal right to claim compensation under the Consumer Protection Act (1987). If there is an issue with a plug-in solar product, it is not clear who is legally responsible (manufacturer, retailer, installer etc).

Regarding enforceability, it is not clear how the 'one-per-household' rule can be applied. As mentioned in the General Comments section above, the REA recommends that all plug-in solar products should be registered and linked to a UK address.

Part 2: interim product specification

1. *Do you agree with the proposal to require manufacturer compliance with an interim product specification before a plug-in solar product can be placed on the market?*

   Yes, all manufacturers must comply with the product specification in order to have access to the UK market. The REA favours stringent standards for plug-in solar products, including:
   - Specific robust cable types, adequate lengths with conservative ratings for the mains connections and panel cables.
   - High levels of IP ratings (e.g. IP67) for all the equipment.
   - Metal casings for fire protection.
   - RCD and ark fault detection device in line with mains lead adjacent to the plug.
   - Over temperature cutouts, additional high mains voltage and over current cutout.

2. *Do you agree with the proposal to use the same broad approach as the German standard (DIN VDE 0126-95) as a baseline, with amendments for the UK context, to support future international harmonisation?*

   No response.

3. *Are the engineering controls in the Interim Product Specification proportionate to the risks in deploying plug-in solar in the UK? If not, please outline anything that is missing or over-specified.*

   No response.

4. *Does the Interim Product Specification address all the points in the safety study commissioned by DESNZ? Please refer to the safety study results published alongside this consultation.*

The Interim Product Specification can be updated as more testing is undertaken, particularly related to how the plug-in solar products perform as they get older. We would also restate our response to [Part 1, Q1] regarding the need for consumers to check the electrical systems in their homes before any plug-in solar products are used.

5. *Are there elements of existing technical standards quoted in the Interim Product Specification that are unsuitable for the UK context or not applicable to plug-in solar products? If yes, please set out any potential modifications.*

   No response.

6. *The electrical safety study showed plug-in solar was safe at a circuit level. Should the Interim Product Specification limit the number of microinverters to one per household or one per household circuit?*

   For simplicity and ease of understanding, the Product Specification should limit the number of microinverters to one per household. Consumers generally do not have detailed information about the wiring and circuits in their homes, and it would be easy to accidentally connect multiple devices to the same circuit as a result. Allowing multiple devices in one household would also mean that the potential generation capacity would exceed 800W. At this stage, the burden of responsibility increases, as the consumer would need to register their device[4] with the local DNO and follow the technical and safety requirements set out for the connection of micro-generators in parallel with public low voltage distribution networks (Engineering Recommendation G98[5]).

7. *What risks or unintended consequences, if any, should be considered in implementing the Interim Specification?*

   No response.

Part 3: consumer protection and market issues

[4] Solar Advice (12 May 2026)m https://solaradvice.co.uk/g98-application/
[5] Energy Networks Association (2025) https://dcode.org.uk/assets/250307ena-erec-g98-issue-2-(2025).pdf

1. *What information should be provided to consumers at the point of sale and prior to installation, including on safety, suitability of existing electrical circuits and protective devices, suitability of dwellings, and limitations of the product?*

Due to the simplicity of setting up and using plug-in solar products, without clear guidance members of the public will treat these products as they would any other household electrical appliance, such as a kettle, microwave or washing machine. Therefore, information must be provided at the point of sale explaining that plug-in solar products are different from other household electrical appliances, because they move electricity in a different direction, from the solar panel and into a home's wiring system. As mentioned in [Part 1, Q1] it is vital that consumers obtain an EICR electrical safety check to determine that the wiring system in their home is suitable and correctly maintained.

In addition, there is a clear need for mandatory standardisation of consumer-facing information. All retailers and installers should be required to provide information in a fixed, standardised format covering at minimum:

- system performance (realistic generation/storage output)
- installation requirements and limitations
- payback period and return on investment (with standardised assumptions)
- safety risks and installation constraints
- compatibility with existing electrical systems
- warranty and aftercare arrangements

Critically, this must include mandatory, prominent safety warnings, using consistent wording across all certification bodies and schemes. Without this, there is a high risk of misleading marketing, inconsistent claims between providers, and consumer misunderstanding of safety and performance expectations.

In conjunction with this, the REA recommends that DESNZ should launch an information campaign in partnership with REAL to explain the issues outlined in this question (safety, suitability, limitations etc). REAL is very well-suited to this, as it is a well-respected consumer-facing body.

Insurance and financial protection uncertainty

It is currently unclear exactly how the insurance market will cover plug-in solar products. For example, insurers are assessing:

- what risks they are willing to underwrite

- how liability is apportioned between manufacturer, retailer, and installer (if any)
- whether product failure, fire risk, and electrical damage fall within standard cover

Without clear, pre-defined insurance-backed protection, consumers may be left exposed to product, retailer or installer failures. In the short-term, consumers should be advised to check their existing home insurance policy to understand the level of coverage they can obtain.

Protecting vulnerable households

Plug-in solar products are cheaper than rooftop solar installations, and as such they are more likely to be marketed towards vulnerable consumers or fuel-poor households. If these products are sold as part of a bundle, there is a risk that consumers do not fully understand the cost, purpose and performance contribution of individual components. Any bundled sales must clearly disclose all of the components included, as well as how performance and savings claims have been calculated.

If the products are sold using finance, consumers may be encouraged to enter into long-term agreements based on projected energy savings, payback periods or return on investment that may not be realised in practice. Again, consumer understanding of both the financial commitment and the performance limitations must be prioritised.

Cybersecurity and connected device risk

If plug-in solar products include digital applications, monitoring platforms or remote management functionality, there is a risk of cybersecurity vulnerabilities and weak data security controls. Consumers may have limited visibility of how their data is collected, stored, shared or secured, and may be exposed to risks including unauthorised access, system manipulation, or loss of control over connected functions. Clear minimum expectations on cybersecurity standards, data handling and user access controls should form part of the consumer protection framework.

Data protection and privacy

Where systems involve apps or smart functionality, personal and usage data may be collected as part of system operation. Consumers should be clearly informed, in plain language, about what data is collected, how it is used, who it is shared with, and how long it is retained. There is a risk that such information is currently

not presented with sufficient prominence at point of sale, particularly where systems are sold online or as part of bundled offers.

Landlords

Finally, information should be provided to consumers living in rental properties. They should be advised to consult with their landlord before using a plug-in solar device. The landlord may be reluctant to obtain a new EICR due to the cost, but as described above, performing this check is vital. Tenants may also have restrictions in their rental contract regarding the use of devices which alter the performance of the wiring system, so this should also be checked before any purchases are made.

2. *Are there risks of misuse, misunderstanding, or unsafe adaptation that should be mitigated? If yes, please set out the settings in which these risks would be most relevant e.g. types of dwellings.*

We are concerned that there are safety risks if plug-in solar products are installed (mounted) by untrained people. Understandably, consumers may view using plug-in solar products as an alternative to paying for rooftop solar, which must be professionally installed and registered. They may also reason that using multiple plug-in solar products in the same property could improve their potential savings; however, this will put more pressure on the wiring system and raise the risk of fire, overheating or electrical overload. Additionally, multiple plug-in solar products will exceed the 800W limit and increase the burden of responsibility on the consumer (a G98 application is required etc). See the response to [Part 2, Q6] for more information.

Other safety risks to consider include:

- inefficient or unsafe placement of solar panels
- incorrect cabling or extension use, including trailing cables and/or unsafe routing through windows or doors
- weather exposure and water ingress risks
- Using extension leads or plug adaptors
- Tampering with/modifying the equipment

Another risk is that customers purchase plug-in solar products which do not meet the required Product Specification. For example, if a customer is buying their product online (via a website such as Amazon), it may not be clear that the

product is of sufficient quality. A substandard product may leave exposed wires or screw connectors, which could be extremely dangerous due to the potential for contact with high voltage electricity. This can be addressed with a certification mark – see the response to [Part 1, Q2] for more information.

Part 4: implementation and timing

1. *Is the proposed timeline for introducing the Interim Product Specification feasible? If not, why not?*

   As mentioned in the 'General Comments' section, the REA is supportive of the proposed timeline's ambition, and we welcome any moves that will improve consumers' access to renewables. However, safety is paramount, and so moving at speed must not prevent the introduction of the appropriate safeguards (certification of products, issuing of guidance for consumers, manufacturers, retailers and installers).

2. *What support or guidance would help ensure timely and effective implementation of the Interim Product Specification?*

   Once again, we refer to our response to [Part 1, Q1] - making sure that guidance emphasizes the need for an electrical safety check.

List of Terms

DESNZ	Department for Energy Security and Net Zero
DNO	Distribution Network Operator
EICR	Electrical Installation Condition Report
GHDR	Green Homes Dispute Resolution
IET	Institution of Engineering and Technology
NESO	National Energy System Operator
PSSR	The Plugs and Sockets etc. (Safety) Regulations
RCD	Residual Current Device
REA	Renewable Energy Association
REAL	Renewable Energy Assurance Ltd.