NSAI Standards

Standard Recommendation
S.R. 55:2021

Solar photovoltaic micro-generators for dwellings - design, installation, commissioning and maintenance

S.R. 55:2021

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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Foreword

This Standard Recommendation (S.R.) was prepared by NSAI/TC 031/SC 07 Solar Panels.

This Standard Recommendation promotes higher standards of quality in the design, installation, commissioning and maintenance of photovoltaic microgeneration systems in dwellings.

This S.R. does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with an S.R. does not of itself confer immunity from legal obligations.

Referenced documents include any amendments and corrigenda.

This document has been drafted in line with international standards practice. The following representation of numbers and numerical values apply:

— The decimal point is shown as a comma (,) throughout this document,

— Each group of three digits reading to the left or to the right of a decimal sign are separated by a space from the preceding digits or following digits respectively.

The following verbal forms are used:

— “should” indicates a recommendation,

— “may” indicates a permission,

— “can” indicates a possibility or a capability.

Information marked as “NOTE” is for guidance in understanding or clarifying the associated recommendation.

Introduction

This S.R. provides practical information and guidance on the design, installation, commissioning and maintenance of solar photovoltaic (PV) systems in dwellings to ensure that they are designed and installed correctly, meet manufacturer's criteria, are energy efficient and maximise output, whether for use by the dwelling or for export to the public electricity grid.

This S.R. is complementary to I.S. 10101:2020 and IEC 62548:2016 standards.

Solar photovoltaic micro-generators for dwellings - design, installation, commissioning and maintenance

1 Scope

This S.R. provides guidelines for the design, installation, commissioning and maintenance of solar PV systems with outputs that are connected to and operate in parallel with the Low Voltage (LV) Network. This S.R. applies to single phase microgeneration as defined by the network operator in both new and existing dwellings.

This S.R. applies to solar PV systems which use crystalline silicon or thin film standard PV modules only.

It does not apply to design, installation, commissioning and maintenance of solar PV modules or PV cells which form part of a building envelope including PV tiles, PV slates, PV modules or PV cells which are ground mounted, wall mounted or form part of the roofing or cladding of the dwelling commonly known as BIPV (built in PV) systems.

2 Normative references

There are no normative references in this document (see bibliography).

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

bi-directional grid-connected power converter
power converter connected to the grid by bi-directional inverter with multiple DC-port interfaces

[SOURCE: I.S. EN IEC 62909-1:2018]

bi-directional inverter
equipment capable of converting active electrical power from AC to DC and DC to AC

[SOURCE: I.S. EN IEC 62909-1:2018]

cable
assembly of one or more conductors and/or optical fibres, with a protective covering and possibly filling, insulating and protective material

[SOURCE: IEC 62548:2016]

client
builder or owner of the dwelling

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