

## **Building Regulation Advisory Note No. 3 of 2013**

Issued 20 September 2013

# **Regulation of photovoltaic solar panels installed for electricity generation**

## **Permits required for installations of solar panels**

The *Building Act 2000* provides that owners must obtain building permits for alterations of, and additions to, existing buildings and the erection of new structures, unless the work is *exempt*, or a permit is *not required*.

The installation of solar panels on the roof (or the walls) of any building (including a garage or shed) is an addition to that building. The *Building Act 2000* defines an addition to a building as building work.

Erection of solar panels on their own support frame on the ground is also building work, as it is the erection of a new structure.

## **Exemption from a building permit for the installation of small arrays of solar panels**

An amendment to the *Building Regulations 2004* (regulation 4(r)) on 28 November 2012 inserted an exemption for the installation of small arrays of solar panels. The specified panel array size of 18m<sup>2</sup> was to represent an “average domestic” installation that could generate electrical energy of approximately 3 kW. Exempting smaller solar installations from a permit was to reduce the compliance and installation costs to consumers and provide a boost to the local renewable energy sector.

The exemption in Regulation 4 reads as follows:

*In accordance with section 60(2)(a) of the Act, building work on the following buildings is exempt from the requirement for a building permit:*

*(r) solar panels that cover an area of less than 18 square metres;*

## **Background to the small array exemption**

The Building Regulations have traditionally contained exemptions for a range of minor structures, building repairs, or small alterations to buildings. It also exempted some small additions to buildings, e.g. a mast or antenna, if it was under 6m in height. The emphasis regarding these exemptions is that they are small in nature and pose a minimal risk to occupants or the public if there was a structural failure of that addition or of its attachments to a building. The exemption created in 2012 for solar panel arrays less than 18m<sup>2</sup> is consistent with that approach.

## **Size of an exempt small solar array**

The prescribed exempt size of 18m<sup>2</sup> applies to the total size of the array being installed on the building.

If the roof is made up of separate roof structures and any load applied to one area does not transfer to another the exemption of 18 m<sup>2</sup> may be applied to each structure. The building surveyor would need to determine suitability of application of this advice to the particular building.

## When is a building permit required for solar panel installation?

A solar panel array that is larger than the specified size (18m<sup>2</sup>) will require either:

1. a building permit from the local council; or alternatively
2. an accredited building surveyor may determine the particular work to be a minor alteration under section 60(2)(b) of the *Building Act 2000*. Before work commences they will notify the council that for this project, a building permit is not required.

More details regarding this minor alteration process are provided below.

### Solar panel installation as a “Minor Alteration” of a building

To be a minor alteration of a building within the meaning of section 60(2) of the Act, the building work must not exceed \$5000. Above that amount, it cannot be “minor”. While the cost of “building work” is determined by what the owner has contracted to pay for the work, for solar array installation it is a class of *electrical work* that needs a building permit, so the actual cost of the building work component (panel mounting rails or framework and their fixing) is not the full retail price of the solar system that the client pays. If the building work component of the installation is \$5000 or less, it may be deemed to be a minor alteration by a building surveyor. The building surveyor will need to be provided with evidence from the owner of the cost of the building work components, including the relevant labour charge.

This advice is consistent with previous advice that the cost of building work for wind turbines does not include the cost of the generator and blades.

As a building permit is not required, other accredited *building practitioners* (building designer or builder) do not have to be engaged by the owner for the solar installation. If the installation work is carried out or managed by a licensed electrician an accredited builder is not required under the accreditation provisions of the Building Act. Council building permit fees and the government levies will not apply.

### Role of the Building Surveyor

The building surveyor effectively becomes the permit authority for minor alterations and minor repairs. The building surveyor will need to be satisfied that the existing roof structure is capable of taking the dead loads and live loads imposed on it by a particular proposed solar array. This will require a level of documentation and sometimes a certificate from a structural engineer or other accredited building practitioner.

### Role of the Electrician

AS/NZS 5033:2012 *Installation and safety requirements for photovoltaic (PV) arrays*, requires that support structures and module mounting arrangements comply with building codes, regulations and standards. For new buildings, the electrician must be satisfied that the building surveyor was aware that a particular solar array was to be installed on the building. For existing buildings, if the solar array is over 18m<sup>2</sup>, the electrician must be satisfied that a building permit has been issued for the proposed array and mounting arrangement, or have evidence that a building surveyor has determined that the building work is a minor alteration. An electrician will need documentary evidence in all cases. For a new building it will be a building permit indicating the proposed solar array. For an existing building it will be a building permit for the installation of the solar array or if it has been determined to be a minor alteration, a copy of the building surveyor’s notification to the relevant council permit authority.

## **Solar panel installation - licensing and legislative requirements**

- Electricians licensed in Tasmania who manage or perform electrical work that needs a building permit are also specifically exempt from accreditation as a builder under section 23A of the *Building Act 2000*.
- For the owner to obtain Renewable Energy Certificates, installers must to be accredited by the Clean Energy Council, a national industry body.
- The installation of a solar system is not minor electrical works and therefore under the Occupational Licensing Act it is considered notifiable to the electrical safety inspection service.