

## EXPLANATORY STATEMENT

### *Renewable Energy (Electricity) (Method for Solar Water Heaters) Amendment (Correction of Minor Errors) Determination 2017*

This determination is made by the Clean Energy Regulator (the Regulator) under subregulation 19B(1) of the *Renewable Energy (Electricity) Regulations 2001* (the Regulations).

#### **Legislative provisions**

The *Renewable Energy (Electricity) Act 2000* (the Act) grants a right to create small-scale technology certificates ('certificates') in relation to the installation of a solar water heater. Subsection 22(1) of the Act provides that the number of certificates that may be created for a particular installation of a solar water heater is to be determined in accordance with the Regulations. Subsection 22(2) of the Act permits regulations to be made for the purposes of subsection 22(1) that may, among other things, provide for the Regulator to determine the number of certificates that may be created for a particular installation in accordance with a legislative instrument made by the Regulator.

Regulation 19A of the Regulations provides that the number of certificates that may be created for a particular model of solar water heater in a particular zone and installation period is the number set out in the Register of solar water heaters applicable to the model, zone and period. The Register of solar water heaters is established and kept by the Regulator under regulation 19C of the Regulations.

For the purposes of subsection 22(1) of the Act, subregulation 19B(1) of the Regulations permits the Regulator to determine the method to be used to determine the number of certificates that may be created for a particular model of solar water heater. In making the determination, the Regulator must have regard to the methods set out in the Australian Standards, as in force at the time, listed in Schedule 4 of the Regulations.

Regulation 19BA provides that when an instrument under subregulation 19B(1) of the Regulations is in force, the Regulator must determine the number of certificates that may be created for a solar water heater in each of the zones mentioned in paragraph 19C(3)(b) in accordance with the determination.

#### **Purpose and operation of the instrument**

This determination removes a duplicate paragraph and corrects some typographical errors in the *Renewable Energy (Method for Solar Water Heaters) Determination 2016* (F2017L00028) (the 2016 Determination), as made by the Clean Energy Regulator on 13 December 2016 and registered on 6 January 2017. The 2016 Determination commenced on 20 February 2017.

The typographical errors appear in cross-references to relevant steps elsewhere in the 2016 Determination, but the wrong nomenclature is used (in terms of paragraph numbering and the use of the word "item" instead of "Step"). The typographical errors are largely self-

evident. It would be reasonable to assume that the “slip rule” would have applied to the original errors, because the amendments are merely correcting the text rather than the actual state of the law. However, in the interests of clarity, the Regulator decided to amend the relevant provisions.

This determination also corrects an error in the way in which the equation that underpins Step 4.b. of the method for determining the number of certificates that may be created for a model of solar water heater with a volumetric capacity more than 700 litres has been described in the text. This correction will eliminate any confusion that may arise on reading the text of the 2016 Determination. However, as a matter of practice, the correction is likely to be of little consequence, because the wrongly-described equation is set out correctly in the Transient Energy System Simulation Tool (TRNSYS) computer modelling package that underpins the method. (All applicants are required to use the TRNSYS computer modelling package to undertake the modelling required by the 2016 Determination.)

The TRNSYS computer modelling package (versions 15 and 16) was produced by the University of Wisconsin-Madison (Klein, S.A. et al, TRNSYS 16: A Transient System Simulation Program, Solar Energy Laboratory, University of Wisconsin, Madison, USA and Klein, S.A. et al, TRNSYS 15: A Transient System Simulation Program, Solar Energy Laboratory, University of Wisconsin, Madison, USA). Information about the package, including its distributors, could in February 2017 be viewed on the University of Wisconsin-Madison’s website (<http://sel.me.wisc.edu/trnsys/index.html>). Other relevant information includes:

- TRNSYS Extensions for Australian Solar Products (extension package TRNAUS). The package was prepared in February 2014 by Graham L. Morrison, School of Mechanical Engineering, University of New South Wales. The package could in February 2017 be viewed on Thermal Design Pty Ltd’s website ([http://users.tpg.com.au/t\\_design](http://users.tpg.com.au/t_design)).
- Clean Energy Regulator template TRNSYS deck and weather files. This zip file contains template deck and weather files to be used as the basis of the TRNSYS modelling for the STC methodology to support any request made by (or for) manufacturers to have their solar water heater models added to the Register of solar water heaters. The document ‘CER template decks’ could in February 2017 be viewed on the Clean Energy Regulator’s website ([http://www.cleanenergyregulator.gov.au/RET/Pages/Forms and resources/Forms-and-resources-for-manufacturers.aspx](http://www.cleanenergyregulator.gov.au/RET/Pages/Forms%20and%20resources/Forms-and-resources-for-manufacturers.aspx)).

This determination is made under subregulation 19B(1) of the Regulations, as extended by subsection 33(3) of the *Acts Interpretation Act 1901*. Subsection 33(3) provides that where an Act confers a power to make, grant or issue any instrument of a legislative or administrative character (including rules, regulations or by-laws), the power shall be construed as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend, or vary any such instrument.

This determination is a legislative instrument for the purposes of the *Legislation Act 2003*.

This determination commences on the day after it is registered.

A statement of compatibility with human rights for the purposes of Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011* is at Attachment A.

## Documents incorporated by reference

This determination refers to the following Australian Standard:

Standard No.	Name
AS/NZS 4234:2008 (as in force at the time the determination commences)	Heated water systems – Calculation of energy consumption

The standard sets out a method for evaluating the annual energy performance of water heaters using a combination of test results for component performance and a mathematical model to determine the standardized annual purchased energy use. The procedure is applicable to electric, gas and solar water heaters with integral boosting or preheating into a conventional storage or instantaneous water heater and to heat pump water heaters. For solar and heat pump water heaters, displaced purchased energy relative to reference water heaters is also calculated.

Due to licensing and copyright restrictions, the standard is not necessarily freely and readily available. The agency expects that industry participants (as opposed to members of the general public) who require access to the standard in order to undertake their day to day business activities will already have the standard or would purchase it as part of their professional library. The standard represents best practice, and is already referenced or incorporated into other Commonwealth and State/Territory legislation (including the *Renewable Energy (Electricity) Regulations 2001*). It is therefore likely already to be in the possession of those persons who will use the solar water heaters method.

The Clean Energy Regulator is in the process of negotiating with SAI Global Pty Ltd (the distributor of the Australian standards under a commercial arrangement with Standards Australia) to enable the Regulator to make the relevant standards available free of charge to members of the general public, but at a reduced cost to the Regulator. Otherwise, members of the public will be required to purchase the standards that are not otherwise available free-of-charge through SAI Global. Alternatively, members of the public may view copies of the standards in the Main Reading Room at the National Library of Australia (and obtain copies from its Copies Direct service in accordance with the *Copyright Act 1968*). Anyone who is unable to attend the National Library in Canberra may request a copy of the standard at a local library using the Inter-Library loan service.

The Regulator is aware that the relevant standard is amended from time to time. For this reason, the standard to be incorporated is the version that is in force at the time the *Renewable Energy (Electricity) (Method for Solar Water Heaters) Amendment (Correction of Minor Errors) Determination 2017* commences.

## Regulatory Impact

The Office of Best Practice Regulation conducted a preliminary assessment in relation to the matters contained in the 2016 Determination and advised that a Regulatory Impact Statement was not required (OBPR ID: 20996). As this determination predominantly corrects errors in that determination in reliance on slip-rule considerations, the Regulator has not sought a further assessment.



## **Consultation on the 2016 Determination**

In November 2013 and February 2016, the Regulator provided an exposure draft of the template files to the solar water heater industry to consult on the proposed approach and to resolve any technical issues.

The Regulator targeted consultation to solar water heater manufacturers and technical experts. The Regulator received feedback from eleven stakeholders in the first 2013 three-week consultation period and from four stakeholders in the second 2016 consultation period. Feedback was received from technical experts and large and small-scale Australian solar water heater manufacturers during both consultation processes.

The industry was broadly supportive of the changes and identified that the proposed template files would reduce administrative burden and streamline their application process. The feedback and proposed changes were reviewed by a technical panel that advises the Regulator, and incorporated into the revised template input files.

## **Consultation on this determination**

The Regulator consulted with its (external) technical advisers about the matters covered by this determination. It also placed a notice on its website, advising of the proposed changes to the 2016 Determination that would be effected by the making of this determination.

## **Statement of Compatibility with Human Rights**

*Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011*

### ***Renewable Energy (Electricity) (Method for Solar Water Heaters) Amendment (Correction of Minor Errors) Determination 2017***

This Legislative Instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

#### **Overview of the Legislative Instrument**

The *Renewable Energy (Electricity) Act 2000* grants a right to create small-scale technology certificates in relation to the installation of a solar water heater. The right to create certificates vests in the owner of the solar water heater at the time it is installed and may be assigned to another person.

A certificate is ‘currency’ for the purposes of the Small-scale Renewable Energy Scheme and may be traded or used to meet a liability arising under the scheme. In practice, certificates or the right to create certificates, are generally traded to recoup a portion of the cost of purchasing or installing a solar water heater.

The *Renewable Energy (Electricity) (Method for Solar Water Heaters) Amendment (Correction of Minor Errors) Determination 2017* amends the *Renewable Energy (Method for Solar Water Heaters) Determination 2016* (the 2016 Determination) to correct typographical and similar errors. The 2016 Determination sets out a method to be used to determine the number of certificates that may be created for a particular model of solar water heaters. The method in the 2016 Determination seeks to ensure that the number of certificates that may be created reflect the amount of electricity a model of solar water heater displaces.

#### **Human rights implications**

This Legislative Instrument does not engage any of the applicable rights or freedoms.

#### **Conclusion**

This Legislative Instrument is compatible with human rights as it does not raise any human rights issues.