



STATUTORY INSTRUMENTS.

**S.I. No. 482 of 2014**



SUSTAINABLE ENERGY ACT 2002 (CONFERRAL OF ADDITIONAL  
FUNCTIONS — RENEWABLE ENERGY)(AMENDMENT) ORDER 2014

## SUSTAINABLE ENERGY ACT 2002 (CONFERRAL OF ADDITIONAL FUNCTIONS — RENEWABLE ENERGY)(AMENDMENT) ORDER 2014

I, ALEX WHITE, Minister for Communications, Energy and National Resources, in exercise of the powers conferred on me by section 8(2) of the Sustainable Energy Act 2002 (No. 2 of 2002), after consultation with the Sustainable Energy Authority of Ireland and the Minister for Public Expenditure and Reform, and for the purpose of giving effect to Article 14(3) of and Annex IV to Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009<sup>1</sup>, hereby order as follows:

1. This Order may be cited as the Sustainable Energy Act 2002 (Conferral of Additional Functions — Renewable Energy)(Amendment) Order 2014.

2. The Sustainable Energy Act 2002 (Section 8(2)) (Conferral of Additional Functions — Renewable Energy) Order 2012 (S.I. No. 158 of 2012) is amended —

(a) in Article 3, by substituting for paragraph (a) the following:

“(a) to liaise with relevant persons to ensure in so far as is reasonable that by 31 December 2012 certification schemes or equivalent qualification schemes for installers of small-scale biomass boilers or stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps become or are made available and are based on the criteria in the Schedule;

(aa) to ensure that certificates awarded by other Member States and which are in accordance with the criteria in the Schedule are recognised;”,

and

(b) by inserting the following Schedule:

“Schedule

## CERTIFICATION OF INSTALLERS

The certification schemes or equivalent qualification schemes referred to in Article 3(a) shall be based on the following criteria:

<sup>1</sup>OJ No. L140, 5.6.2009, p.16

*Notice of the making of this Statutory Instrument was published in “Iris Oifigiúil” of 28th October, 2014.*

1. The certification or qualification process shall be transparent and clearly defined by SEAI.
2. Biomass, heat pump, shallow geothermal and solar photovoltaic and solar thermal installers shall be certified by an accredited training programme or training provider.
3. The accreditation of the training programme or provider shall be effected by SEAI. SEAI shall ensure that the training programme offered by the training provider has continuity and regional or national coverage. The training provider shall have adequate technical facilities to provide practical training, including some laboratory equipment or corresponding facilities to provide practical training. The training provider shall also offer in addition to the basic training, shorter refresher courses on topical issues, including on new technologies, to enable life-long learning in installations. The training provider may be the manufacturer of the equipment or system, institutes or associations.
4. The training leading to installer certification or qualification shall include both theoretical and practical parts. At the end of the training, the installer must have the skills required to install the relevant equipment and systems to meet the performance and reliability needs of the customer, incorporate quality craftsmanship, and comply with all applicable codes and standards, including energy and eco-labelling.
5. The training course shall end with an examination leading to a certificate or qualification. The examination shall include a practical assessment of successfully installing biomass boilers or stoves, heat pumps, shallow geothermal installations, solar photovoltaic or solar thermal installations.
6. The certification schemes or equivalent qualification schemes referred to in Article 3(a) shall take due account of the following guidelines:
  - (a) accredited training programmes should be offered to installers with work experience, who have undergone, or are undergoing, the following types of training—
    - (i) in the case of biomass boiler and stove installers, training as a plumber, pipe fitter, heating engineer or technician of sanitary and heating or cooling equipment as a prerequisite,
    - (ii) in the case of heat pump installers, training as a plumber or refrigeration engineer and have basic electrical and plumbing skills (cutting pipe, soldering pipe joints, gluing pipe joints, lagging, sealing fittings, testing for leaks and installation of heating or cooling systems) as a prerequisite, and

- (iii) in the case of a solar photovoltaic or solar thermal installer, training as a plumber or electrician and have plumbing, electrical and roofing skills, including knowledge of soldering pipe joints, gluing pipe joints, sealing fittings, testing for plumbing leaks, ability to connect wiring, familiar with basic roof materials, flashing and sealing methods as a prerequisite, or
  - (iv) a vocational training scheme to provide an installer with adequate skills corresponding to a three years education in the skills referred to in paragraph (a), (b) or (c) including both classroom and workplace learning;
- (b) the theoretical part of the biomass stove and boiler installer training should give an overview of the market situation of biomass and cover ecological aspects, biomass fuels, logistics, fire protection, related subsidies, combustion techniques, firing systems, optimal hydraulic solutions, cost and profitability comparison as well as the design, installation, and maintenance of biomass boilers and stoves. The training should also provide good knowledge of any European standards for technology and biomass fuels, such as pellets, and biomass related Irish and European Union law;
- (c) the theoretical part of the heat pump installer training should give an overview of the market situation for heat pumps and cover geothermal resources and ground source temperatures of different regions, soil and rock identification for thermal conductivity, regulations on using geothermal resources, feasibility of using heat pumps in buildings and determining the most suitable heat pump system, and knowledge about their technical requirements, safety, air filtering, connection with the heat source and system layout. The training should also provide good knowledge of any European standards for heat pumps, and of relevant Irish and European Union law. The installer should demonstrate the following key competences —
- (i) a basic understanding of the physical and operation principles of a heat pump, including characteristics of the heat pump circle: context between low temperatures of the heat sink, high temperatures of the heat source, and the efficiency of the system, determination of the coefficient of performance (COP) and seasonal performance factor (SPF),
  - (ii) an understanding of the components and their function within a heat pump circle, including the compressor,

expansion valve, evaporator, condenser, fixtures and fittings, lubricating oil, refrigerant, superheating and sub-cooling and cooling possibilities with heat pumps, and

- (iii) the ability to choose and size the components in typical installation situations, including determining the typical values of the heat load of different buildings and for hot water production based on energy consumption, determining the capacity of the heat pump on the heat load for hot water production, on the storage mass of the building and on interruptible current supply; determine buffer tank component and its volume and integration of a second heating system;
- (d) the theoretical part of the solar photovoltaic and solar thermal installer training should give an overview of the market situation of solar products and cost and profitability comparisons, and cover ecological aspects, components, characteristics and dimensioning of solar systems, selection of accurate systems and dimensioning of components, determination of the heat demand, fire protection, related subsidies, as well as the design, installation, and maintenance of solar photovoltaic and solar thermal installations. The training should also provide good knowledge of any European standards for technology, and certification such as Solar Keymark, and related Irish and European Union law. The installer should demonstrate the following key competences—
- (i) the ability to work safely using the required tools and equipment and implementing safety codes and standards and identify plumbing, electrical and other hazards associated with solar installations,
  - (ii) the ability to identify systems and their components specific to active and passive systems, including the mechanical design, and determine the components' location and system layout and configuration,
  - (iii) the ability to determine the required installation area, orientation and tilt for the solar photovoltaic and solar water heater, taking account of shading, solar access, structural integrity, the appropriateness of the installation for the building or the climate and identify different installation methods suitable for roof types and the balance of system equipment required for the installation, and
  - (iv) for solar photovoltaic systems in particular, the ability to adapt the electrical design, including determining design

currents, selecting appropriate conductor types and ratings for each electrical circuit, determining appropriate size, ratings and locations for all associated equipment and subsystems and selecting an appropriate interconnection point;

- (e) the installer certification should be time restricted, so that a refresher seminar or event would be necessary for continued certification.”.



GIVEN under my Official Seal,  
23 October 2014.

ALEX WHITE,  
Minister for Communications, Energy and Natural Resources.

## EXPLANATORY NOTE

*(This note is not part of the Instrument and does not purport to be a legal interpretation.)*

This S.I. pertains to the conferral of additional functions on the Sustainable Energy Authority of Ireland (SEAI). The functions being assigned to SEAI relate to requirements under Annex IV to the Renewable Energy Directive 2009/28/EC concerning certification schemes for installers of small-scale biomass boilers and stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps.

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