Solar Victoria Home Heating and Cooling Upgrades Program

Fact sheet

The Victorian Government is investing $335.5 million over four years to provide efficient, low-cost heating and cooling for low income and vulnerable households. The grants, starting on 1 July 2021, will help 250,000 households.

Provided through Solar Victoria, the grants will help households install high-efficiency reverse cycle air conditioners, replacing inefficient heaters.

Who can disconnect and make safe the wiring associated with the decommissioning of an existing heating and cooling unit

An A-class electrician working under a registered electrical contractor (REC) can disconnect and make safe the wiring associated with the decommissioning of an existing heating and cooling unit.

Examples of existing heating and cooling units (direct wired no plug socket and lead):

- A direct wired reverse cycle box air conditioner
- A direct wired electric heating panel
- A direct wired gas ducted heating unit
- A direct wired gas inbuilt space heater
- A direct wired gas wall furnace

Who can install wiring and electrical equipment associated with the installation of a new split system air conditioner

The installation of wiring and electrical equipment, such as residual current operated circuit breaker with overcurrent protection (RCBO) and the isolator for a split system air conditioner, must be carried out by a person who holds an A-class electrical licence working under an REC. This includes the installation and the connection of the interconnecting wiring between the indoor and outdoor units.

Who can carry out the disconnection and reconnection of electrical wiring associated with the replacement of an existing split system air conditioner with a new split system air conditioner

A person who holds a restricted electrical workers licence (REL) can replace an air conditioner that is to be installed in the same location and is of the equivalent power rating of the existing air conditioner.

A REL is not permitted to install or alter any installation wiring, including the interconnecting wiring between the indoor and outdoor units.

As with new air conditioner installs, an A-class electrician working under an REC can carry out the full installation of a replacement air conditioner, including altering or replacing any wiring.

Standards

When wiring a split system air conditioner the following key requirements of *AS/NZS3000:2018 AMDT 2* (The Australian New Zealand Wiring Rules) must be considered:

- **Manufacturer specifications** - *Clause 4.1.2 (e)* an air conditioner must be installed in accordance with the requirements of chapter 4, including any additional requirements as specified in the manufacturer's instructions.
  This means that if the manufacturer's specifications require the air conditioner to be installed on a dedicated circuit then this must be adhered to. Further, if the manufacturer specifies a particular cable size over and above *AS/NZS3000 or AS/NZS3008*, this must also be adhered too.
- **Consumer Mains Protection against Overcurrent** - The addition of load to an installation, such as installing a split system air conditioner, often triggers the requirement to protect the consumer mains against over current.
  Two common ways of protecting the consumer mains are by installing a main switch circuit breaker at the main switchboard as per *clause 2.5.1.2(b)* or by installing a current limiting device directly after the main switch.
- **Isolator** - *Clause 4.19* requires split system air conditioners to be provided with an isolating switch that is installed adjacent to, but not on the unit itself. The isolating switch must be lockable and meet all the requirements of *clause 2.3.2.2*. The isolator must isolate all parts of the system, including ancillary equipment, such as head units.
  Where the manufacturer requires the air conditioning system to be connected to the electricity supply by means of a plug and socket at the internal unit, the isolating switch installed at the external unit shall control the socket-outlet located at the internal unit.
- **Air conditioner final sub-circuit** - *Clause 2.6.3.2.2* requires all final sub-circuits in a domestic installation be protected by a residual current device (RCD). Split system air conditioning is included in this requirement

Non-Prescribed Certificates of Electrical Safety

A non-prescribed certificate of electrical safety (COES) must be completed when:

- The disconnection of any existing heating or cooling unit, involves the disconnection and making safe of the electrical wiring associated with the supply to that heating or cooling unit.
- A split system air conditioner (either a replacement or new unit) is installed.

The COES must describe all of the electrical installation work carried out. This includes the wiring supplying the air conditioner, the interconnecting wiring between the indoor unit and the outdoor units and any electrical equipment such as circuit breakers, RCD's and Isolators.

If the installation of a main switch circuit breaker is required, due to the installation of a new split system air conditioner as previously mentioned, the works can be carried out as a single component replacement part of prescribed work as per *regulation 249 (4) (b)* of the *Electrical Safety (General) Regulations 2019* (**ESGR**) and be included on the non-prescribed certificate of electrical safety.

Who can replace an existing main switchboard

The replacement of an existing switchboard must be carried out by a person who holds an A-class electrical licence working under a REC.

Prescribed Certificates of Electrical Safety

As the replacement of an existing main switchboard and its circuit protective devices are deemed to be prescribed electrical installation work under *regulation 249 (b)* of the ESGR, the person responsible for carrying out the electrical installation work must complete and sign a prescribed certificate of electrical safety

and then engage a licensed electrical inspector (LEI) to inspect the switchboard before the switchboard can be reconnected to the electricity supply.

Rewireable fuse type switchboards

Below are examples of rewireable fuse type switchboards that may be eligible for a $500 rebate within the program.

Other resources and links

- Solar Victoria Home Heating and Cooling Upgrades Program: Certificates of Electrical Safety flow chart https://esv.vic.gov.au/pdfs/coes-flow-chart-solar-victoria/
- Never work live campaign: https://esv.vic.gov.au/campaigns/never-work-live/
- Victorian Electricity Supply Industry Code of Practice Service – Low voltage fuse removal and reinsertion: http://www.victoriansir.org.au/site/DefaultSite/filesystem/documents/VESI Fuse Remove and Reinsertion 2014.pdf
- Effective supervision of Electrical apprentices – Your responsibilities: https://esv.vic.gov.au/pdfs/your-responsibilities-apprentice-supervisor/
- Information about Certificates of Electrical Safety: https://esv.vic.gov.au/licensing-coes/coes/

Who we are

Energy Safe Victoria is the State's regulator for electricity, gas and pipelines safety.

Our role is to ensure that Victorian gas and electricity industries are safe and meet community expectations. We are also responsible for licensing and registering electricians and educating the community about energy safety.

More information is available on the Energy Safe Victoria website: www.esv.vic.gov.au