AIR CONDITIONERS
REGULATION CHANGE

Information for
MANUFACTURERS & SUPPLIERS

Important changes are coming on 1 July 2023 in South Australia for some air conditioner types that get installed from this date onwards.

The changes will help deliver a smarter electricity grid, more flexibility for consumers, and more affordable energy for everyone.

As an air conditioner manufacturer or supplier it is important you understand the changes, why they are happening, and what it means for you and your customers.

NEW DEMAND RESPONSE REQUIREMENT FOR AIR CONDITIONERS

From 1 July 2023 in South Australia, certain air conditioners must not be installed or connected unless they comply with the demand response requirements in the Technical Regulator's new guideline. The guideline can be accessed from the Department for Energy and Mining website at www.energymining.sa.gov.au/airconregs

Air conditioners covered by these requirements include any of the following with a cooling capacity of up to 19kW:

- Single phase air conditioners
- Three phase air conditioners

The requirements do not apply to:

- Close control air conditioners
- evaporative air conditioners
- portable air conditioners
- air conditioners supplied with a mains plug for connection into a mains socket / wall socket and that are not permanently installed via hard wiring.

It is critical to note that whilst these changes legally require air conditioners to have demand response capabilities, they do not require consumers to participate in demand response programs. Consumer participation in these programs is voluntary.

DELIVERING MORE AFFORDABLE ENERGY

Air conditioners with demand response capabilities allow consumers to voluntarily access future demand response programs.

Demand response programs provide incentives to consumers for shifting their energy usage away from times of high demand on the electricity grid and to periods of lower demand.

The changes that consumers make through demand response helps deliver a smarter and more flexible electricity grid, and better use of our abundant renewable energy. This delivers more affordable energy for all South Australians.

WHAT SUPPLIERS AND MANUFACTURERS ARE ENCOURAGED TO DO

The Technical Regulator encourages suppliers and manufacturers to take the following steps to maximise customer experience, assist installers with their legal obligations, and proactively manage any sales and stock.

1. View the Technical Regulator Compliance list (compliance list). This list outlines all air conditioners that the Technical Regulator has registered as complying with the guideline. It is available at www.energymining.sa.gov.au/airconregs.

2. Review the air conditioners you are supplying, stock that has been shipped but not sold or installed, and any stock on hand against the compliance list.

3. If your air conditioner is not on the compliance list, submit your air conditioner for registration by 1 July 2023. The registration application form is available via www.energymining.sa.gov.au/airconregs. **Note that registration of products under the guideline is optional.**

4. Take proactive measures to ensure that from 1 July 2023, any air conditioners required to be compliant that are installed or connected to the South Australia distribution network from this date, comply with the guideline and are on the compliance list.

Proactive measures may include:

- contacting retailers to confirm which of your products comply with the demand response requirements in the guideline.
- working with retailers and customers to determine alternative products that can be installed if compliance of a sold or stocked product cannot be confirmed.

The compliance list is updated regularly as more air conditioners are registered. Suppliers and manufacturers should review the list on a regular basis.

Q What are the demand response requirements in the Technical Regulator Guideline?

A From 1 July 2023, designated air conditioner types must not be installed or connected to the South Australian electricity distribution network unless they comply with the following demand response requirements:

- any of the following standards:
  - AS/NZS 4755.3.1:2014; or
  - AS/NZS 4755.2 (when published); or
  - the equivalent of the superseded AS/NZS 4755.3.1.2012 (for a limited period until 1 July 2025 or 12 months after the publication of AS/NZS 4755.2, whichever is the later date);
- and three demand response modes - DRM1, DRM2, and DRM3.

The guideline can be accessed from the Department for Energy and Mining website at www.energymining.sa.gov.au/airconregs.

The Technical Regulator may add other standards in future revisions of the guideline.

Q What are designated air conditioner types?

A Designated air conditioner types include any of the following with a cooling capacity of up to 19kW:

- Single phase air conditioners
- Three phase air conditioners

Q What is an installer required to do under the Technical Regulator Guideline?

A Installers are required to comply with the demand response requirements in the guideline, via any of the following options:

- Install a model that has a demand response capability built into the product that is ready to use as supplied, OR
- Install a model with a separate part or component that they have added to enable demand response capability, OR
- Install a model that is potentially demand response capable (as defined in AS3823.2.2011[1]), only if a separate part or component is added to it in the future.

1 *AS3823.2.2011 defines potentially demand response capable as "An air conditioner that is potentially fully compliant with AS 4755.3.1, once a nominated standard part or component, that is not otherwise supplied with every unit, has been added or fitted, either at the time of manufacture or at any subsequent time, e.g. pre-delivery, at installation or after installation."*

Q How do I determine which designated air conditioners comply with the demand response requirements in the Technical Regulator Guideline?

A To assist you to determine this compliance, the Technical Regulator Compliance list (compliance list) outlines which air conditioners the Technical Regulator has registered as complying. This list is available at www.energymining.sa.gov.au/airconregs.

The compliance list consists of three categories:

Category 1. Products the Technical Regulator has automatically registered as complying with the requirements of the guideline because they are part of the Energex PeakSmart program. Air conditioners that are eligible under this program are deemed to satisfy the guideline.

The following products that the Technical Regulator has registered as complying with the requirements of the guideline, following an application by the supplier or manufacturer:

Category 2. A product that has a demand response capability built into the product that is ready to use as supplied.

Category 3. A product that is demand response capable (as defined in AS4755.3.1.2012[2]) or potentially demand response capable (as defined in AS3823.2.2011[3]), only if a separate part or component is added to it at installation or in the future.

2 *AS/NZS AS4755.3.1.2012 defines demand response capable as "An air conditioner that is supplied with the necessary interface, circuitry and components to full comply with this Standard."*

3 *AS/NZS 3823.2.2011 defines potentially demand response capable as "An air conditioner that is potentially fully compliant with AS 4755.3.1, once a nominated standard part or component, that is not otherwise supplied with every unit, has been added or fitted, either at the time of manufacture or at any subsequent time, e.g. pre-delivery, at installation or after installation."*

Q How do I apply to register products under the guideline?

A You complete and submit the Technical Regulator Guideline product registration form (product registration form). This form is available via www.energymining.sa.gov.au/airconregs.

Registration of products under the guideline is optional. However, if you have products that comply with the requirements, that are not already on the compliance list, you are encouraged to apply to register them. This will assist installers with their legal obligations.

Once the Technical Regulator has registered a product, they will add it to the compliance list.

Q Can I supply or manufacture an air conditioner that is not on the Technical Regulator Compliance list?

A **YES.** However, to assist installers with their legal obligations and maximise the customer experience of the retailers you work with, you are encouraged to:

- confirm in writing to your retailers that the air conditioner meets the requirements of the guideline.
- submit the product for registration under the guideline
- be aware and make your retailer aware that your product will not be able to be installed from 1 July 2023 unless it meets the requirements of the guideline

Q What happens if a non-complying air conditioner is installed?

A A person who connects a non-complying air conditioner to the South Australian electricity distribution network on or after 1 July 2023 may be subject to financial penalty under the *Electricity Act 1996*.

An electronic certificate of compliance (eCoC) issued by the electrical installer/contractor, will be the customer's evidence that connection of the air conditioner meets the requirements of the guideline.

Q I would like to register a product that only meet the requirements of the guideline if a separate part or component is added.

A You can apply to register this product as complying. In the declaration of compliance section of the product registration form, you need to indicate that the product has demand response capability or potential demand response capability if a separate component or part is added.

Q Does the requirement apply to existing air conditioners?

A **NO.** The requirement only applies to air conditioners installed on or after 1 July 2023.

Q Does a customer have to participate in demand response programs?

NO. The demand response requirements apply to air conditioners and do not require customers to participate in demand response programs. Importantly, whilst a customer's appliance will be capable of demand response, it will be the customer's choice to activate the capability to allow their energy retailer to control their air conditioner.

A What is demand response?

Demand response (DR) refers to the ability for smart appliances, including air conditioners, to respond to remote communications that increase or decrease the amount of load on the power system. DR supports the maintenance of power system security and reliability for all Australian energy users.

DR modes are the capabilities built into a smart appliance that facilitate this response to remote communications. They give the appliance the ability to increase, decrease, stop, and start using power (sometimes at variable rates) from the grid.

Q Why is demand response important?

A South Australia's electricity demand is changing.

Rooftop solar systems are covering more household energy needs, meaning there are days where South Australia's grid electricity demand falls quite low. This often occurs on mild sunny weekend days where solar systems are producing large amounts of energy, and household energy needs are small.

The Australian Energy Market Operator has identified that without action, declining minimum demand conditions could represent a real risk of the supply of electricity being disrupted to the South Australian community. If the excess energy generated cannot be used or stored, it creates voltage and power quality issues which add to network costs and can result in PV inverters disconnecting from the grid.

At the same time, on some days South Australia's demand for grid electricity can be more than double what is needed for a typical day. This is described as peak demand and only occurs a few times each year on extremely hot summer days, primarily due to the increasing use of air conditioners in homes. If demand is higher than supply, it can lead to power outages and is a challenge for secure electricity supply.

Smart appliances with DR capability can assist to effectively manage the impact of low system demand and high system demand conditions in South Australia. They can also support broader system security and reliability

The South Australian Government is therefore introducing standards for DR capability for certain smart appliances, including air-conditioners. These standards will not only provide power system benefits. They will also give consumers specific benefits through greater choice in how they manage their energy use. They will be able to opt-in to future DR programs that reward them for shifting their energy demand away from typically expensive peak periods of high demand, towards periods of cheaper high supply.

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Acknowledgement of Country

As guests here on Kaurna land, the Department for Energy and Mining (DEM) acknowledges everything this department does impacts on Aboriginal country, the sea, the sky, its people, and the spiritual and cultural connections which have existed since the first sunrise. Our responsibility is to share our collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.

4/10/2023-205612