

SA Demand Response Requirements for Air Conditioners

Presentation for installers

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energymining.sa.gov.au



Purpose of tonight's session

- Explain why we want to introduce these requirements
- Outline what the requirements are that we are proposing
- Explain how the requirements will be implemented
- Answer any questions
- Outline the next steps.



National context – DR requirements

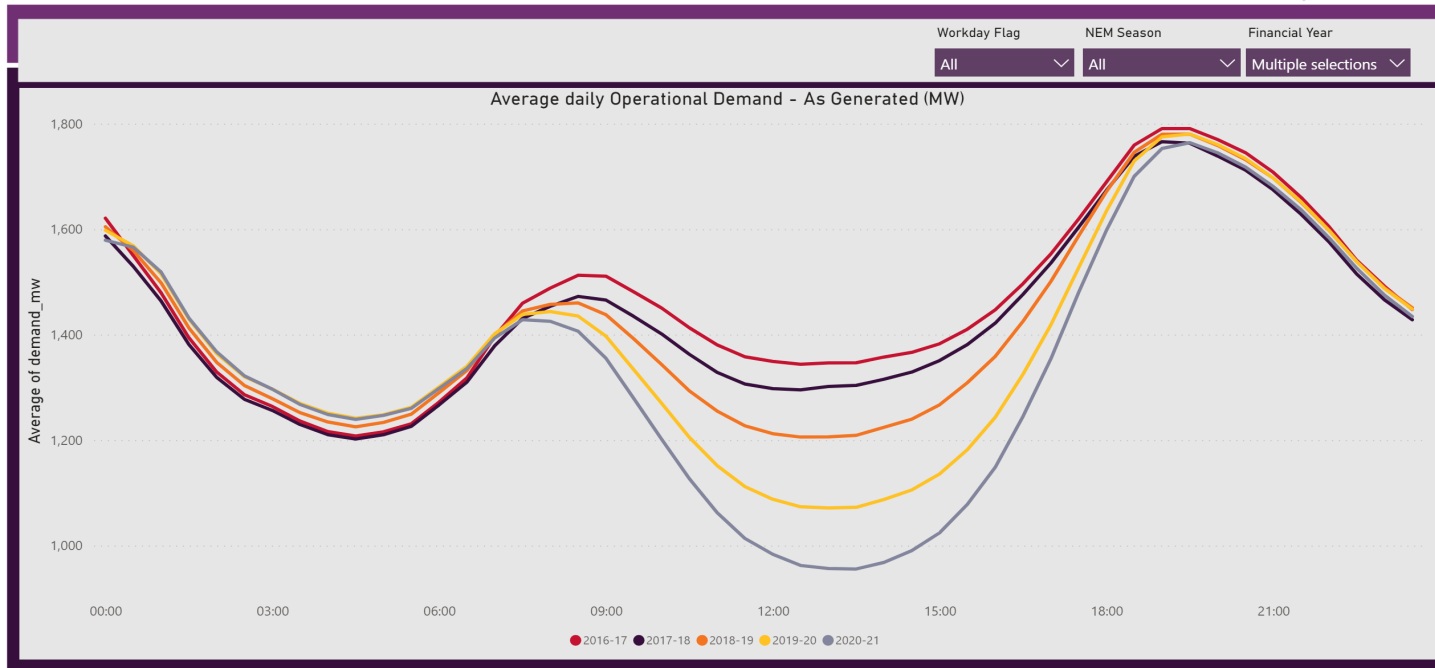
- In November 2019, Energy Ministers agreed to introduce demand response requirements for electric resistive water heaters, air conditioners, pool pump controllers and electric vehicle chargers.
- Demand response is the rapid, automated modification of appliance operation in response to changes in the condition of the grid
- AS/NZS 4755 framework underpins the demand response requirements that Energy Ministers agreed to.
- The Energy Ministers' decision has not been implemented nationally.
- National progress does not match the growing significance of minimum demand and peak demand challenges in South Australia.



SA context – energy transition challenges



South Australian Electricity Report



Last Refreshed: Thursday, 30 September 2021



South Australia's local regulatory requirements

- ***Electricity (General) (Technical Requirements for Electrical Equipment) Variation Regulations 2021***
- Electrical equipment designated by the Technical Regulator will be prohibited from connecting to the distribution network unless it meets demand response capability requirements in guidelines published by the Technical Regulator
- Technical Regulator is designating particular air conditioners.



When do the requirements for air conditioners commence?

What are the legal obligations on installers?

Subject to final Technical Regulator approval, from 1 July 2023, designated air conditioner types, up to a cooling capacity of 19kW inclusive must not be installed or connected to the South Australian electricity distribution network unless they meet the demand response (DR) capability requirements in the new Technical Regulator Guideline (to be published shortly).

What air conditioners are designated air conditioner types?

Air conditioner has a cooling capacity of up to 19kW inclusive

AND IS ONE OF THE FOLLOWING:

- Single phase air conditioners
- Three phase air conditioners
- Single duct air conditioners



What air conditioners don't need to comply with the DR requirements?

Air conditioners with a cooling capacity of over 19kW

Evaporative air conditioners

Portable air conditioners

Air conditioners that plug into a mains socket/wall socket
(That don't need to be installed via hard wiring)



DR requirements in the guideline



Designated air conditioner types must comply with any of the following demand response capability 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, DRM3)

We are mandating demand response capability requirements not demand response participation

- The Technical Regulator Guideline will mandate DR capability requirements for air conditioners. However, it will not mandate customer participation in DR programs.

AS/NZS 4755.3.1.2012 or 4755.3.1.2014 compliant air conditioners

- DR capability requirements – to be DR capable, products need to have a physical interface designed to connect to an external demand response enabling device (DRED).
- For customers with these air conditioners to participate in a DR program, a DRED would need to be installed and they would need to consent to participate.

AS/NZS 4755.2 compliant air conditioners

- DR capability requirements - products must have a means of communication with the remote agent built in (e.g. wifi or 3G/4G/5G).
- For customers with these air conditioners to participate in a DR program, they would just have to consent to participate.



The Technical Regulator compliance list – a useful installer compliance resource



Technical Regulator compliance list

- Is a list of air conditioners that the Technical Regulator has registered as complying with the DR requirements in the guideline.
- Helps installers determine whether a designated air conditioner complies with the DR requirements in the guideline
- Will be accessible via the Department for Energy and Mining website.
- Will be updated whenever the Technical Regulator registers an air conditioner under the guideline.
- An installer can still install or connect a designated air conditioner to the SA distribution network even if it is not on this list – as long as the air conditioner complies with the DR requirements in the guideline.

Composition of the compliance list

We are proposing that the Technical Regulator compliance list consist of 3 categories:

- 1** products that the Technical Regulator has automatically registered as complying with the requirements of the guideline because they are part of the Queensland Energex PeakSmart incentive program
- 2** & **3** 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 - products that have a DR capability built into the product that is ready to use as supplied.

Category 3 - products that are DR capable or potentially DR capable only if a separate part or component is added to them at installation or in the future.



Registration process – an optional process to assist installers with their legal obligations under the guideline

If the product is eligible under the Energex Peaksmart program

- The Technical Regulator will deem the product to comply with the demand response capability requirements in the Technical Regulator guideline. They will automatically register the product and include it on their compliance list.



Registration process – an optional process to assist installers with their legal obligations under the guideline

If the product is not eligible under the Energex Peaksmart program

- The registration process involves a supplier or manufacturer submitting to the Technical Regulator a completed form, with a declaration that the product complies with the DR capability requirements of this guideline.
- The supplier or manufacturer will declare either:
 - 1** The product has a DR capability built into the product that is ready to use as supplied
- OR**
- 2** The product has a DR capability or potential DR capability if a separate component or part is added.
- The Technical Regulator may accept the declaration as sufficient for registration, or request the applicant to submit additional information. This information may include a copy of a test report from an accredited test laboratory or facility that the Technical Regulator is satisfied with.
- Once the Technical Regulator has registered the product, it will add it to the compliance list.

Compliance

- Compliance will be via the Office of the Technical Regulator's electronic certificate of compliance (eCoC) portal.
- Installers will use the eCoC portal to nominate the model of air conditioner that has been installed. This includes being able to select from a drop down menu with the compliance list, broken down into the three registration categories.

Next steps

Initial stakeholder resources being finalised and will be published shortly

- Technical Regulator Guideline
- FAQs for suppliers and manufacturers, installers, retailers and consumers
- Registration portal on the Department for Energy and Mining website
- Compliance list (will be regularly updated)
- **Feedback to DEM**
- Please forward to dem.smartappliances.sa.gov.au
 - any air conditioner retailer contacts (including retailer industry associations) that we could engage with about the proposed requirements.



Questions?

Contacts

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