



Information for consumers

Proposed new requirements for selected appliances and water heaters

The South Australian Government is proposing open standards for demand response capability for electric water heaters, electric vehicle chargers, pool pump controllers and air-conditioners. This will give consumers greater choice in how they manage their energy use and enable them to opt-in to future programs that reward them for shifting their energy demand.

Why is the Government of South Australia making these changes?

Minimum net demand from the grid is an emerging challenge in South Australia. With more consumer energy needs now being met by distributed energy resources, such as solar and batteries, this has resulted at times in very low energy demand from the grid.

The Australian Energy Market Operator (AEMO) has identified a future challenge of ensuring there is sufficient demand on the power system to run it securely and avoid outages. Decreasing demand also contributes to inefficient investment in network capacity and higher wholesale electricity prices, which retailers pass on to all consumers in their electricity bills. Extreme demand on the grid also increases the risks of shortages and blackouts. The ideal outcome is to better match demand with supply at all times, including the typical solar energy supply peaks during the middle of the day.

Appliances with smart demand response capabilities can be used to increase daytime operational demand in exchange for owners receiving financial incentives. They can also be used in emergency circumstances to help support grid stability and security.

What is being proposed?

The South Australian Government is proposing common open standards for smart demand response capability for electric water heaters, electric vehicle chargers, pool pump controllers and air-conditioners. This will give consumers greater choice in how they manage their energy use and enable them to opt-in to future demand response programs that reward them for shifting their energy demand away from typically expensive peak periods of high demand, towards periods of cheaper high supply.

The South Australian Government is proposing to implement these standards in South Australia in a staged process up to 2026. This proposal follows the Council of Australian Governments (COAG) Energy Council agreement in November 2019 on a timetable to introduce mandatory demand response technical standards for selected appliances.

What is demand response?

Quickly balancing demand and supply is vital in an electricity grid for both technical and pricing reasons.

Typically, an operator of an electricity grid instructs power stations to increase or decrease production to match supply demand. However, technological advancements can now allow increased or decreased energy demand from smaller users to be used as an alternative to power station supply to help manage the energy grid.

Appliances that have the capacity to be remotely turned on or off can be collectively used together in large numbers to increase or decrease demand to help match supply.

By introducing common, open demand response standards for these appliances, customers who choose to participate in demand response markets will be able to do so easily, and will be able to opt-in and out of demand response offerings without being locked into particular service arrangements and usually without the need for installing extra equipment.



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While flexible energy demand will provide direct benefits for customers who participate in demand response markets, the benefits of a strong uptake of demand response opportunities will also flow to non-participants through reduced wholesale electricity prices and improved electricity network security.

Does it affect existing appliances?

No, it will only apply to appliances purchased and installed after the commencement date of the technical product requirements.

What if I do not want to participate in a demand response program?

The proposed standards apply to products 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 a third party to control the appliances.

Will it increase the costs of new appliances?

Many models of air conditioners already have demand response capabilities and there is not clear connection between demand response capability and price.

The costs and benefits of the proposals are detailed in the consultation paper - *Demand Response Capabilities for Selected Appliances – South Australia Specific Analysis* at www.energymining.sa.gov.au by navigating to 'Energy and Technical Regulation - Energy Efficiency and Productivity - proposed local demand response requirements for selected appliances and proposed amendments to local energy requirements for water heaters.

What broader benefits does this provide?

The South Australian government believes that households and consumers should have the greatest possible access to renewable energy and smart technologies, to provide them with affordable, reliable and secure energy. This will also help us move towards a decarbonised future.

Our transition to a smart power system will need the right technology and the economic signals to reward flexible energy demand by consumers. We are making the changes necessary to create the smart energy system of the future. This includes introducing new smart standards for water heaters, air-conditioners, pool pumps, and electric vehicles.