

## **Demand management**

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## What is demand management?

Demand management is action taken by residents, us or a third party to reduce demand on the electrical network. When demand on the network is heavy there may be opportunity for residents to reduce their electricity demand for a period of time in exchange for a payment or a like-for-like reduction in their electricity bills.

To fully understand demand management, we first need to understand what demand means in the context of an electricity network.

Consumption of electricity is the overall amount of electrical *energy* used over a fixed amount of time. It is measured in kilowatt-hours (kWh). Demand is the electrical *power* used at any one time and is measured in kilowatts (kW). Most of your appliances will have a *power* rating written on them somewhere near the wall plug, and they may also have a star rating that talks about the *energy* that they use. If your oven has a *power* of 2kW, and you use it for 3 hours then the *energy* you use will be 2kW multiplied by 3 hours, or 6kWh.

The electrical network can only carry a certain amount of *power* at once, and the *power* is determined by how many appliances are used at once, and how hard they are used.

As an example of this, if you use your air-conditioner, vacuum cleaner, dishwasher and washing machine at the same time, you're using a lot of *power* and placing high demand on the network. If you use all four at different times in the day your demand is spread out. Although you're still consuming the same amount of electrical *energy* to run those appliances, you've simply reduced the total *power*, which is reducing the demand.

Demand management initiatives allow us to work with our customers to develop individually tailored responses to reduce *power* demand at times when the network is under heavy load.

## What demand management initiatives are we exploring?

We are working with our customers on three key demand management programs.

**SMS program: Energy Share SMS –** When we need to lower demand on the network we text customers who want to work with us and ask them to reduce their energy use over a two hour period. This includes activities such as waiting to turn on the dishwasher or washing machine, or adjusting the thermostat so less energy is used. Together, <u>Energy Share SMS</u> helps share energy across the network faster and smarter.

Larger customers switching to alternative power supply - we work with larger customers such as the Canberra Institute of Technology and pay them to reduce the load they are putting on the electricity network by either reducing their consumption or using their own alternative supply like their generators or battery banks.

Virtual Power Plant (VPP): Battery customers feeding power back into the grid – there are roughly 700 batteries installed in the ACT that generate electricity from rooftop solar PV (photovoltaic) panels. <u>Working with battery customers</u>, we can harness the energy from these batteries and feed it back into the grid during times of high demand.

## Why is demand management important?

As well as the social benefit of looking after our shared network, demand management is a win-win situation where customers get compensated for their involvement and receive lower electricity charges on their bills long term while allowing us to manage demand. The benefits include the following:

Sustainable electricity network costs - reduction in peak demand can potentially defer network upgrades, so that customers pay no more than necessary for a sustainable energy system.

Increased reliability of service - if customers can switch off their non-essential load in response to a network request when there is local or national supply shortage, we can maintain supply to customers' essential services.

Reducing our carbon footprint - continuing to 'expand' the current network will substantially increase the footprint of the network, which we would like to limit where possible.

Payment for demand reduction - customers who participate in demand management programs may receive a payment for participation.

I want to help. How do I get involved?

There are some really easy ways for you to be a part of these exciting and important initiatives.

If you're a large customer (businesses, institutions etc) you can contact our demand management team and talk to us on ways you can help. Email them on

#### demandmanagement@evoenergy.com.au

If you're working in the demand management space and think you may be able to suggest good ways to address future network constraints, please sign up to our Register of Interested Parties - the form is at the bottom of this page.

Frequently Asked Questions

## What are the demand side management programs Evoenergy offer?

Evoenergy supports the following two broad based DSM programs:

- 1. SMS Program
- 2. Net Benefits Program
- 3. Virtual Power Plant

Details of these programs can be found above.

Evoenergy is actively investigating some other potential DSM programs with a view to developing them for future use.

Our programs broadly achieve two goals - broad based demand reduction and constraint based demand reduction.

Broad based programs address network wide demand and supply quality issues and therefore will be implemented network wide. Constraint based reduction addresses specific network constraints at zone substation or feeder level and therefore will be applied at specific geographic locations. Because the two situations will be called into use at different times and will have different impacts on the network, the incentives available will depend on what situation a particular demand management option will be used for.

## Do I have a TOU meter at present?

If you are already on a TOU Tariff or have a meter also known as a smart meter then you have a TOU meter. This meter records the electricity consumption data for your business and then you can access this data for analysis via our customer portal.

If you don't have a TOU meter, you can get one installed by contacting your electricity retailer - there will be some associated costs. As of 1 December 2017 all new meters installed in the ACT are smart meters.

# How can I better manage my appliances and internal processes to reduce demand?

You can reduce your electricity demand by making simple changes to how and when you operate a broad range of appliances and processes.

Common appliances which can be managed better to reduce demand include the following:

- Lighting
- Air conditioners
- Heaters and ventilations systems
- Chillers plants
- Hot water systems
- Steam generators and boilers
- Air compressors
- Pumps
- Manufacturing process equipment
- Industrial freezers
- Conveyors
- Running standby generators

For many businesses, there may be some energy intensive processes that can simply be shifted by a few hours.

## How do I assess how much electricity and demand will be reduced by different appliances and processes?

We suggest you refer to your appliance manuals or go directly to your appliance suppliers and manufacturers for energy usage information. To get a better understanding you can also log the energy demand and identify the operational and process changes required to reduce your electricity demand. The Evoenergy demand management team will be able to provide you with some assistance on the energy demand data logging process.

## Demand management documents

Demand side engagement strategy Worked Example Business Precinct Avoided TUOS methodology 2022-23

## Interested Parties Register

Evoenergy takes your privacy seriously. We take many steps to protect your privacy and keep your personal information secure. The information you give us will never be provided to third parties or used to send unsolicited emails.

Read Evoenergy's privacy policy and security statement

## Personal details

Title

#### Given name \*

#### Surname \*

Position \*

Company name (if applicable)

## Contact details

#### Email address \*

Contact phone number \*

#### Street address \*

Suburb \*

#### Postcode \*

#### State \*

Please select...

#### Are you a current Evoenergy

#### customer \*

Please select...

#### Particular Demand Side

#### Management area interested in

(provide a brief description) \*

What engagement program or area are you registering your interest for?

Please select...

## What is your role if you participate in DSM programs? \*

Please select...

Submit