Attachment 2.15

Consumer Infographics

January 2015

Ausgrid revised regulatory proposal attachment

Ausgrid worked with Endeavour Energy and Essential Energy to provide information about our future plans for the electricity network to share with consumers in an accessible way. The following infographics were shared on our joint Facebook page, presenting key information in an easy to understand, visual format. These graphics visually presented facts and figures in relation to key areas that were relevant to our regulatory submissions.

Topic	Description
What's an electricity network?	Designed to highlight the role of an electricity distributor and how it differs from Retailers.
Blackouts	Gave facts about reliability and the common causes of unplanned outages.
Streetlights	Facts and statistics about streetlights in NSW.
Electricity bills	Showed the components of the average yearly bill for homes in NSW.
Network electricity prices	A summary of network electricity prices over the past five years.
Ways of charging for electricity	A description of different types of tariffs.
Household electricity meters	Compared the three main types of electricity meters at NSW homes.
Solar	Provided a range of facts and statistics about solar.
Prices and spending for 2014-15	A summary of the 2014-15 network electricity prices.
Managing demand	The different ways that peak demand is managed.
Customer contact	The various reasons why customers contact their electricity distributor.
Public safety	Public safety statistics from 2012-13.

How our network gets electricity to your place

GENERATOR
Makes your electricity

TRANSMISSION COMPANY
Sends it to us

NETWORK
We get it to your house

And we also:
- maintain the poles, wires and substations
- fix blackouts and keep the supply safe
- build and replace substations
- look after streetlights for councils
- send meter readings to retailers

RETAILER
Sends your bill

YOUR HOME

Ausgrid, Endeavour Energy and Essential Energy distribute electricity throughout NSW

FACTS ABOUT BLACKOUTS

1.5 million
Customers in NSW

did not have a blackout last year

60,000
Customers in NSW

had six or more blackouts last year

1-2 hours

Most blackouts last one to two hours

25% down
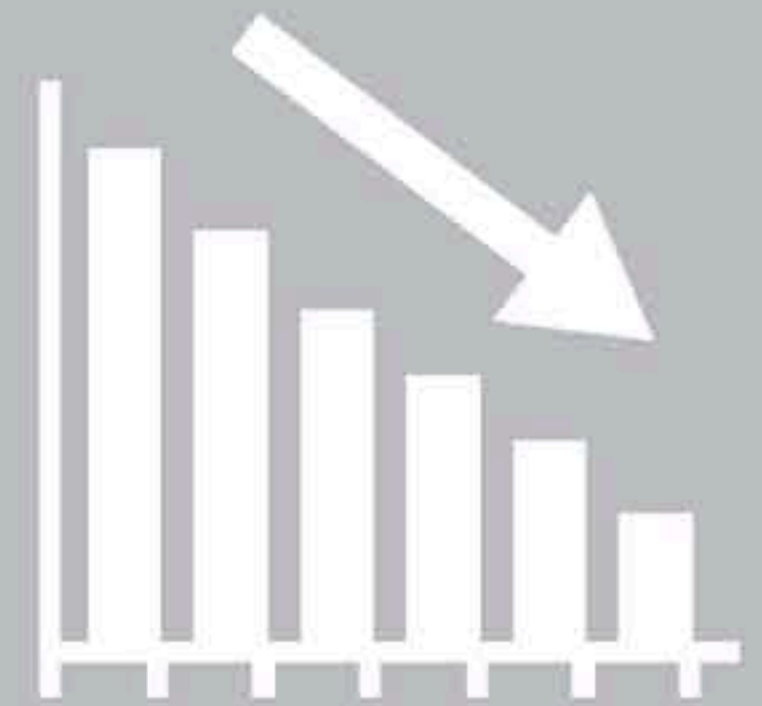
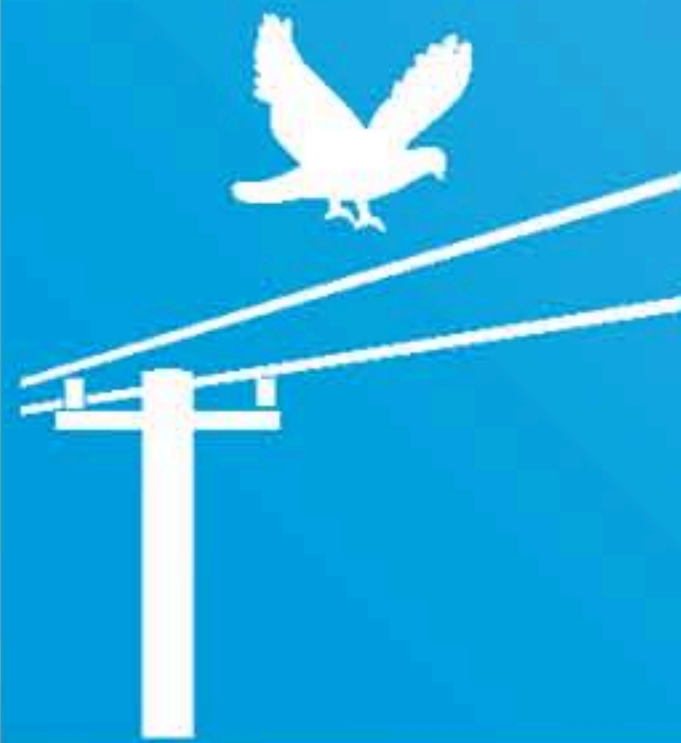The average time customers lost power each year has been cut by 25% over the past 10 years

TOP CAUSES OF BLACKOUTS:

Trees hitting powerlines

Digging into underground cables
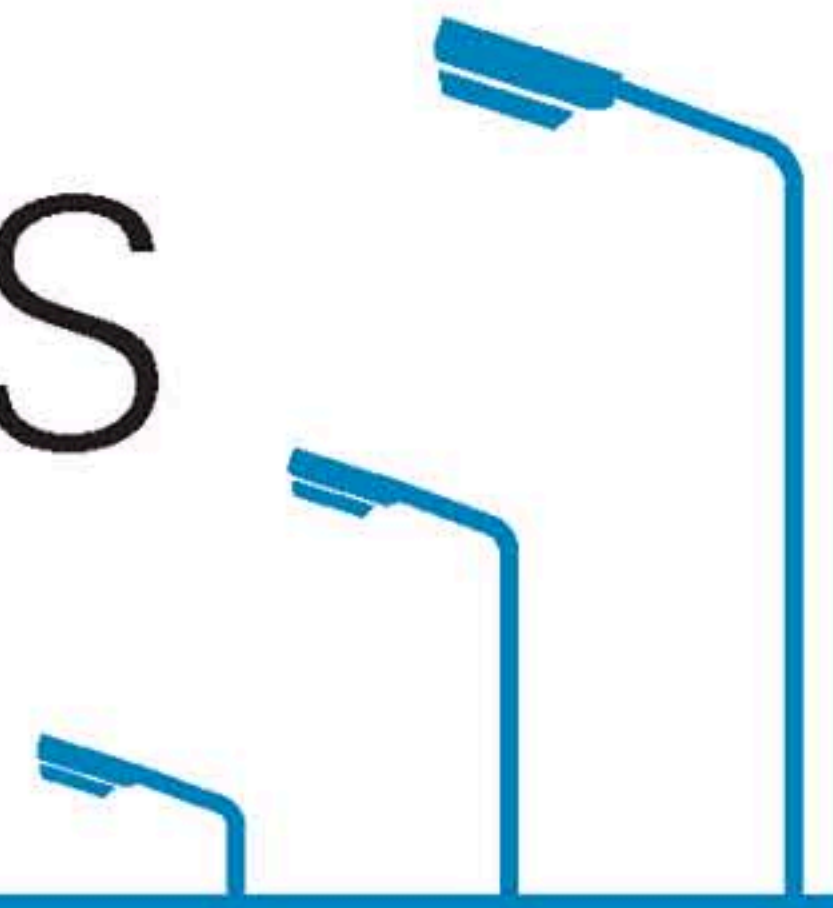
Birds, possums and animals contacting powerlines

Equipment faults

Lightning and storms

FACTS ABOUT STREETLIGHTS

600,000 streetlights

We look after 600,000 streetlights for councils and other groups

180,000 energy efficient streetlights

180,000 of these streetlights are energy efficient, like CFLs and LEDs
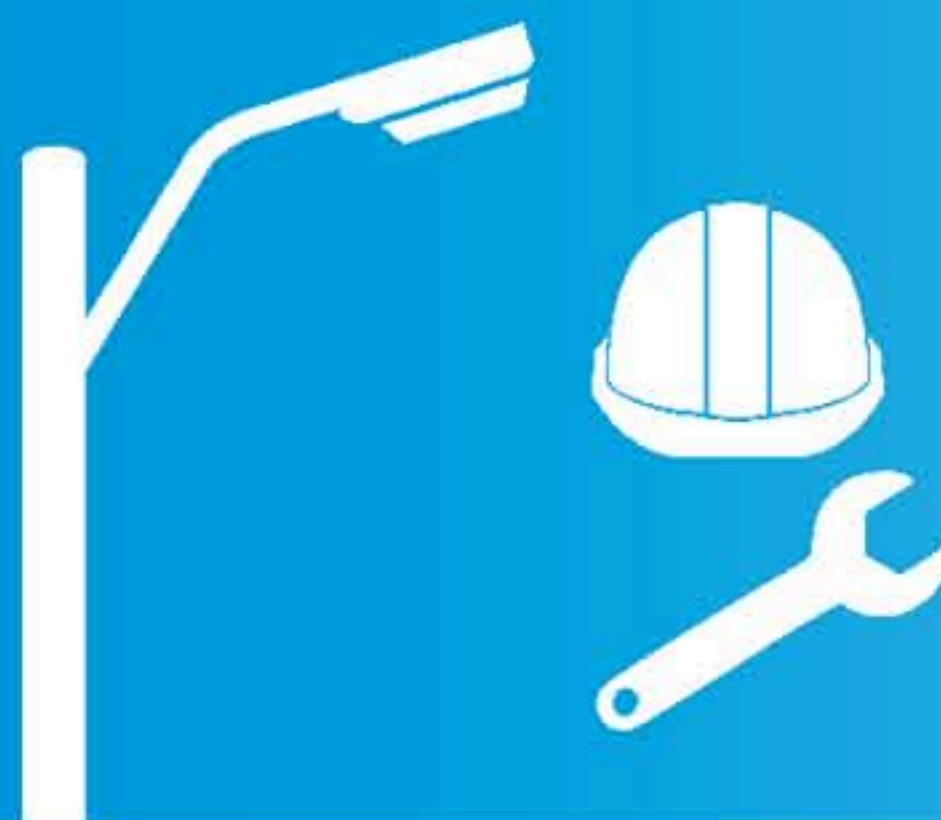
64,000 repairs

We completed about 64,000 repairs to streetlights last year

8 days

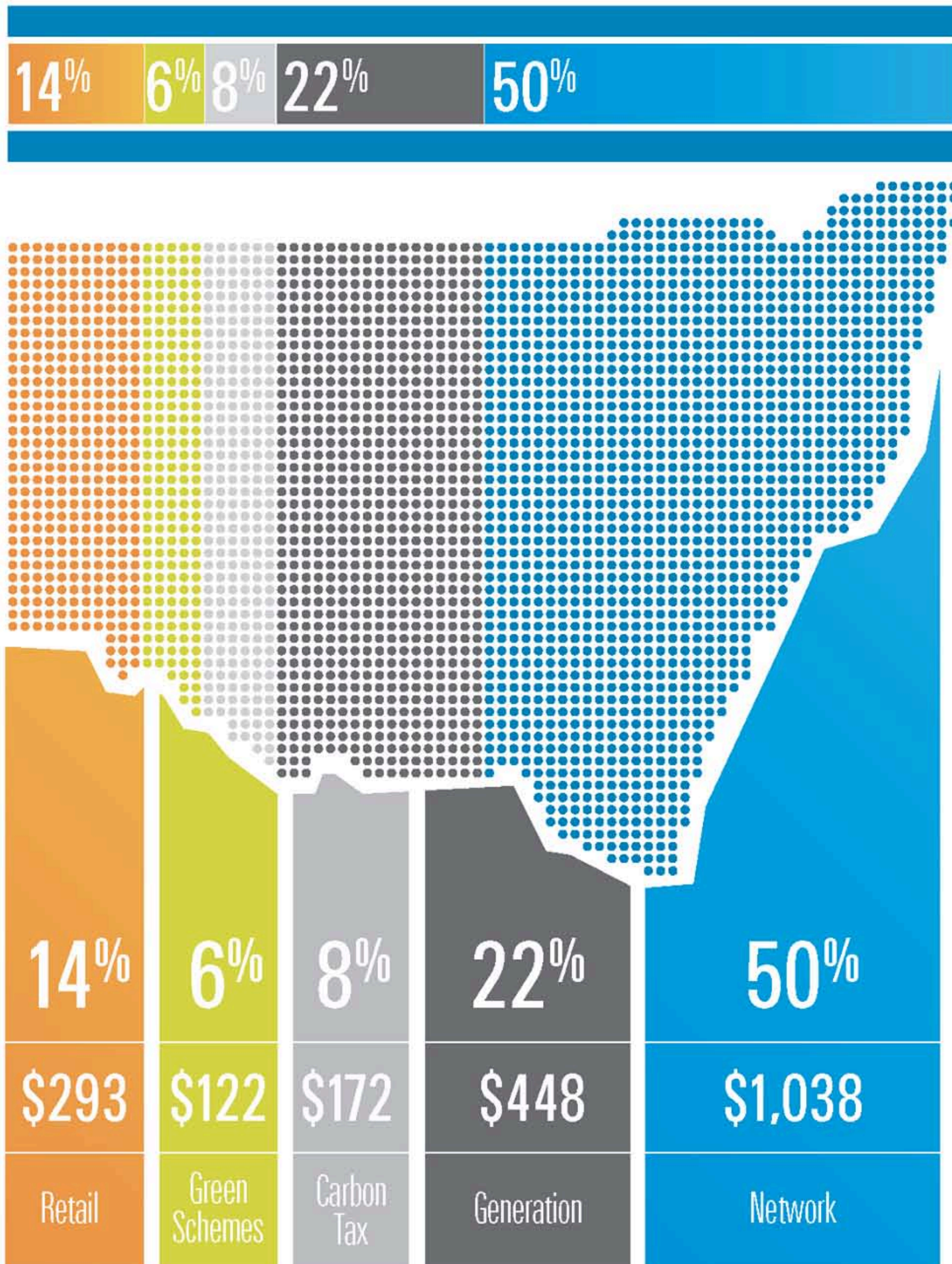The NSW code says streetlights supplied by overhead wires should be fixed in eight days

5.3 days

Most streetlight repairs took an average of five days last year. Faults on underground cables take much longer

$70 million

It costs about $70 million a year to keep streetlights working

AVERAGE YEARLY BILL
FOR NSW HOMES

| 14% | 6% | 8% | 22% | 50% |

14%	6%	8%	22%	50%
$293	$122	$172	$448	$1,038
Retail	Green Schemes	Carbon Tax	Generation	Network

FACTS ABOUT NETWORK ELECTRICITY PRICES

$595 more

Homes now pay $595 more to run the electricity network compared to 5 years ago

$2,428 more

Businesses now pay $2,428 more to run the electricity network compared to 5 years ago

$24 less

Average distribution network prices for homes decreased by $24 in 2013

$117 less

Average distribution network prices for businesses decreased by $117 in 2013

WHAT NETWORK PRICES HAVE PAID FOR OVER THE PAST 5 YEARS

$11.4 billion

To replace old equipment and safely maintain the electricity network

$1.4 billion

For support services like IT systems, trucks and depots

$6.4 billion

For wages, contracted services like tree trimming, and administration

WAYS OF CHARGING ELECTRICITY USE

Inclining block

FIXED CHARGE
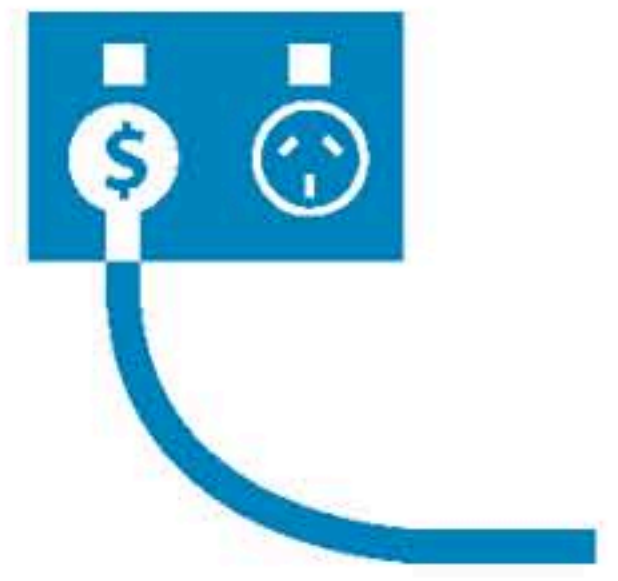
Different rates are charged for electricity use. The first part of electricity use is cheaper than all usage after it.

This the most common tariff for households in NSW.
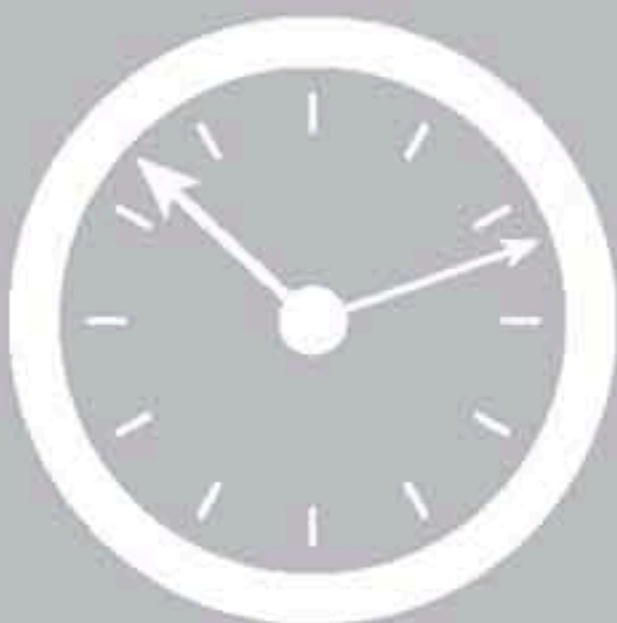
Declining block

FIXED CHARGE

The first part of electricity use is more expensive than all usage after it.
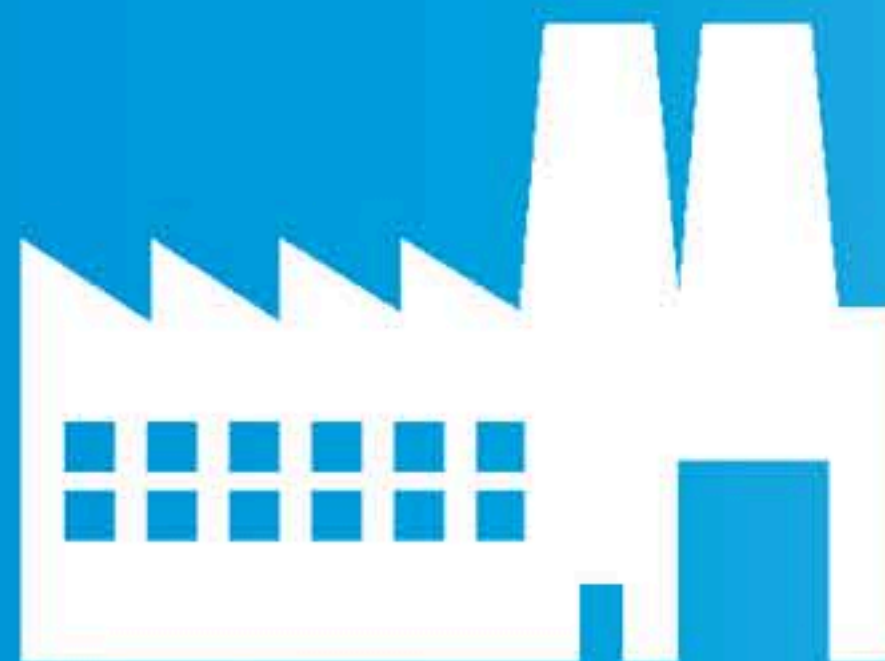
Flat tariff

FIXED CHARGE

All electricity use is charged at the one price. Many homes in regional NSW are on this tariff.

Time-based pricing

The rate for electricity use changes at different times of the day. It is usually cheaper in off peak periods and more expensive in peak times.

Capacity or demand charge

A charge based on the maximum amount of electricity used during a period of time.

Usually applies to large businesses and covers costs for networks to meet the businesses' peak use.

Load control

A cheaper rate is charged to allow networks to turn off appliances in your home at certain times, like off peak hot water.

FACTS ABOUT HOUSEHOLD ELECTRICITY METERS

|	Traditional meter	Interval meter	Smart meter
HOW IT WORKS	Meter tracks total power use. Also called an accumulation meter.	Meter records power use and when it is used, which allows for time-based billing.	Meter records power use every 30 minutes and can communicate remotely, which allows for other customer services.
HOW IT'S READ	Meter reader records one reading from meter each quarter	Meter reader records up to four readings or down-loads data with a probe each quarter	Meter sends data over a secure communications network as needed
HOW MANY IN NSW	4.6 million	890,000	30,000 (mostly in trials)
APPROX METER COST* WITHOUT INSTALLATION	$15 - $35	$40 - $85	$100 - $200
APPROX YEARLY READ COSTS*	$3 - $10	$8 - $20	$30 - $40

*These costs are indicative only and don't include all metering costs such as data management and infrastructure services.
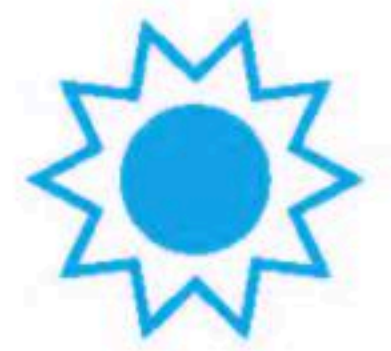
FACTS ABOUT SOLAR

250,000 solar systems

There are more than 250,000 homes and businesses in NSW with solar Photovoltaic (PV) systems connected to the grid.

25 times

The number of solar panels is estimated to have increased by about 25 times over the past four years.

900 gigawatt hours

They can potentially produce up to 900 gigawatt hours of energy a year - about 1.5% of total NSW electricity use.

$1 billion

Solar PV customers eligible for the NSW Solar Bonus Scheme will be paid over $1 billion by December 2016 for the energy they export.

Subsidy

REC
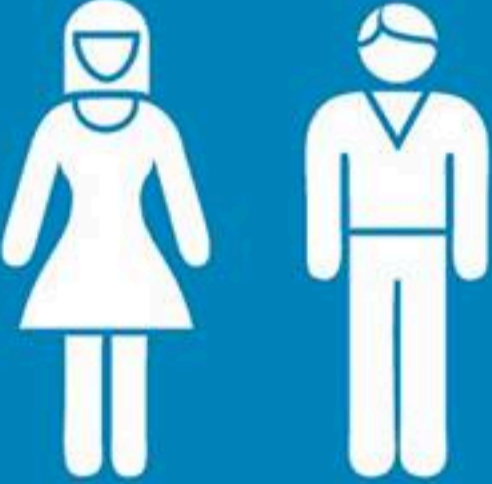
They also received a subsidy via Renewable Energy certificates to help meet Australia's Renewable Energy Target.

$100

100

These payments add about $100 a year to a typical household's electricity costs.

PRICES & SPENDING FOR 2014-2015

	Customers	Allowed revenue	Distribution network bill drop*	Capital expenditure	Operating expenditure
Ausgrid	1,650,000	$2.2 billion	5.4% decrease $36 less	$977 million	$593 million
Endeavour Energy	910,000	$0.9 billion	6% decrease $47 less	$452 million	$292 million
essential energy	815,000	$1.3 billion	2.8% decrease $33 less	$587 million	$481 million

*Average residential customer using 6,500 kWh a year

WAYS OF MANAGING DEMAND

Off peak

More than 1.3 million NSW homes have cheaper off peak prices for their electric hot water system.
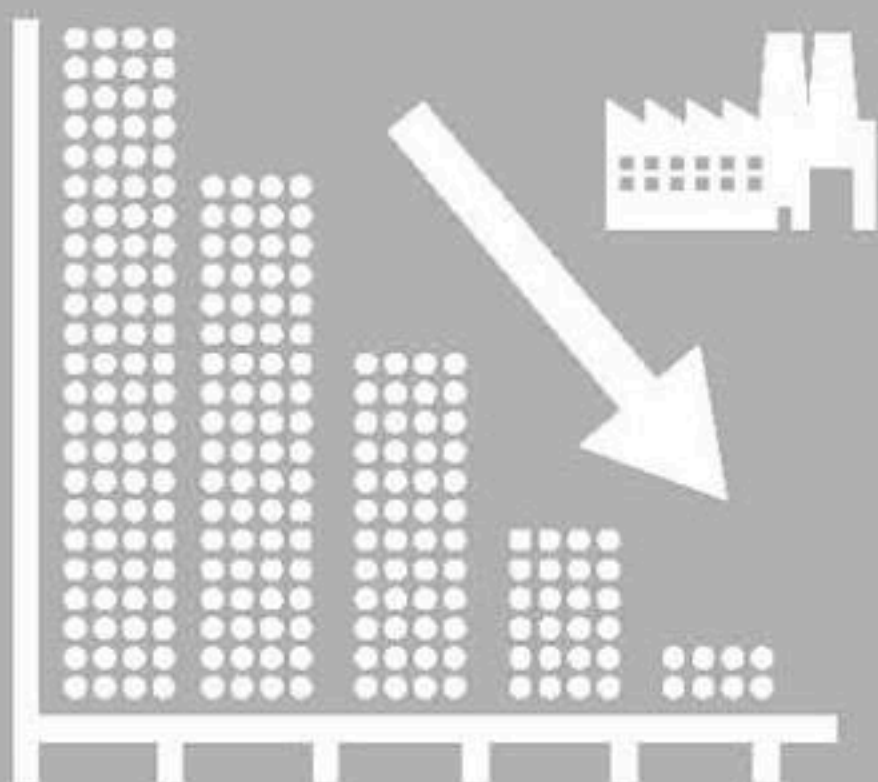
Energy efficiency

Making appliances that operate during peak times more efficiently can help reduce peak demand.

Generation & storage

Embedded generation, like solar PV, and battery storage can sometimes help supply power at peak times.

Power factor correction

This improves the efficiency of electricity supply to businesses with large electrical equipment, like electric motors.

Innovative prices

Network tariffs can be structured to provide a price signal for customers to shift their electricity use away from peak times.

Voluntary load reduction

Incentive payments are available for customers to reduce their electricity use at peak times.

WHY CUSTOMERS CONTACT US

Dangerous situations

To report dangerous situations and supply faults in the home

Outages

To get information about planned and unplanned outages.

Reporting

To report broken streetlights, graffiti on electrical equipment and trees growing near powerlines

Checking underground cables

To confirm the location of underground cables, or Dial Before You Dig.

Work in my street

To find out about maintenance work in a street.

No hot water

To report problems with electric hot water systems.

FACTS ABOUT PUBLIC SAFETY
2012/13

455
shocks in homes

Call your local electricity network if you receive a stock or tingle at home.

1,100
vehicles hit power poles

Safety programs relocate or remove power poles from traffic black spots.
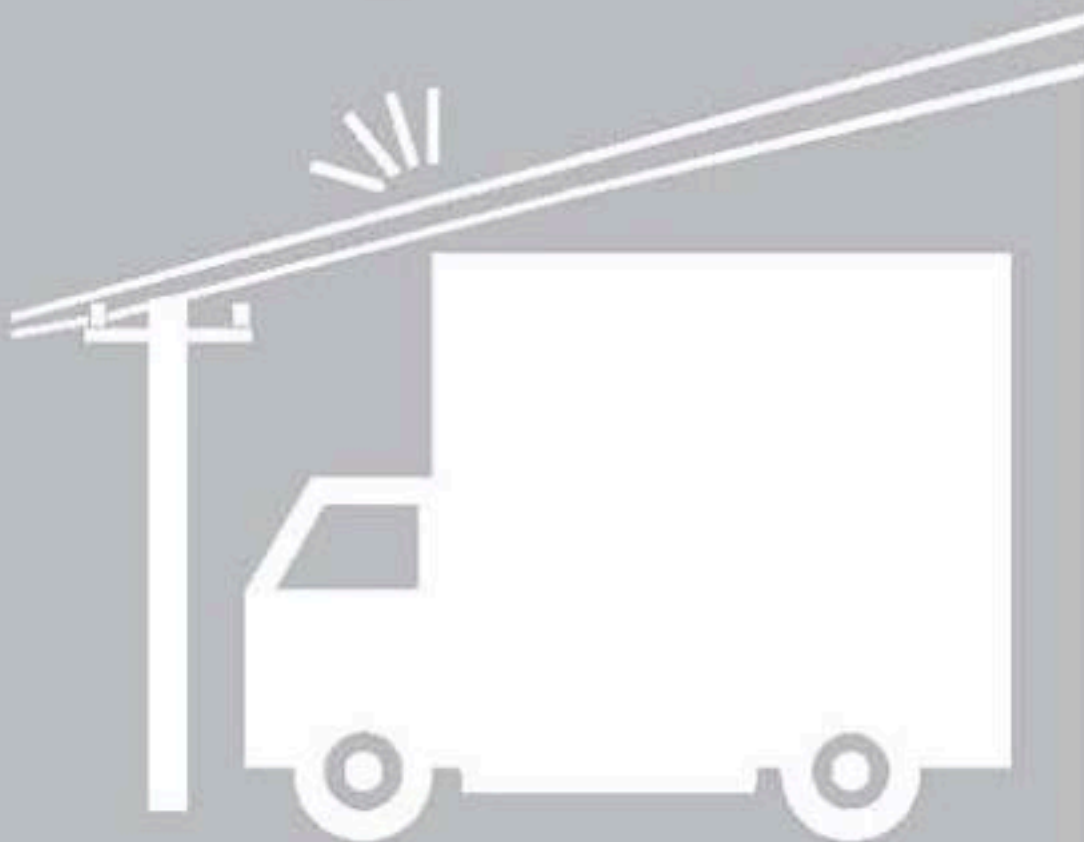
140
power pole failures

We inspect power poles at regular intervals to keep the community safe.

28
overhead powerline strikes

Drivers should always know the maximum height of their vehicle or load to keep clear of powerlines.

32
underground cable strikes

Check for underground cables before excavating by calling Dial Before You Dig on 1100.

68
cases of copper theft

Call Crime Stoppers on 1800 333 000 if you see any suspicious activity around substations or powerlines.