

PLANET ARK**PHILIPS**

7 Myths

of compact fluorescent lamps



Myth 1 - [They're too expensive](#)

Myth 2 - [I don't like the look of them](#)

Myth 3 - [They can't be dimmed](#)

Myth 4 - [They don't last as long as they say](#)

Myth 5 - [They give a harsh white light](#)

Myth 6 - [A broken globe can contaminate your entire home](#)

Myth 7 - [They contain mercury which makes them worse for the environment](#)



Our Legacy

What will be our generation's legacy?

"If we don't try and address climate change, our children and grandchildren are going to look back on us and say – Boy! Was that a greedy, selfish society. They exploited cheap energy for short-term economic profit, not caring what world they left behind."

Dr Robert Watson - Chief Scientific Adviser to the UK Govt

[read more](#)



Why?

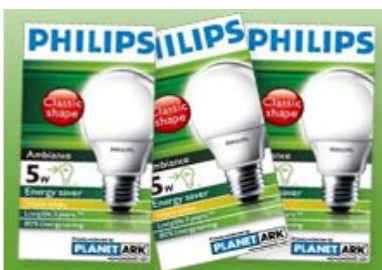
Why Planet Ark has provided this guide?



From the time the ban was announced we have had many questions and comments from the public. Unfortunately, some were complaints related to information that was either outdated or incorrect. [read more](#)



7 Myths Video
[watch now](#)



PLANET ARK endorses
Philips Energy saver
lamps



Switch to a
Brighter World

Myth 1

They're too expensive

This is like saying a modern fuel efficient car is expensive compared to an old V8 gas-guzzler. That's because you would be ignoring the energy (petrol) costs of running it.

A CFL is a sophisticated electronic appliance that turns electricity into light rather than heat. In fact it is designed to work for a lot longer than other small appliances such as toasters and hairdryers. On the other hand, incandescent globes are fairly disposable items based on century old technology which turn electricity mainly into heat. That's why they are so hot to touch. The light they produce is a by-product.

Replacing incandescents with good quality CFLs is one of the best money saving investments you will ever make. Let's take a typical example of a house hold with 10 incandescent globes, each using 100W, burning for five and a half hours each day and paying 15c for every kilowatt hour of electricity. By replacing them with 10 equivalent CFLs (20W), you have invested around \$60. Over the next three years they will save you \$720 in electricity costs. That's like getting **130% pa interest** on a \$60 purchase guaranteed for 3 years! If only all of our investments could be that profitable!

Even more important is the investment you'll be making in a sustainable future for you and your family. In the above example, by burning less coal to produce electricity, 4.8 tonnes of carbon dioxide is saved from entering our atmosphere. This is equivalent to the emissions of driving a family sized car for 20,000 kms.

[Return to top](#)

Myth 2

I don't like the look of them

While beauty is in the eye of the beholder, it is fair to say that until recently the design of CFLs was very different from traditional bulbs and centred on a long 3" tube 'stick' style, which was large and unattractive to many.

While these are still on the market, there are many new designs from innovative lighting companies such as Philips that are much more aesthetically appealing and, in many cases, are more compact. Some styles are indistinguishable from incandescents.

Have a look online at www.philips.com.au/about/news/lighting_globe_range.page or go to your local retailer to check out the variety. In the meantime, here are few examples to brighten your day.

Philips Tornado

Philips Ambience

Philips Candle

Philips Reflector



[Return to top](#)

Myth 3

They can't be dimmed

This used to be true, but a range of dimmable CFL options is available amongst the leading brands. These will work on most dimmers circuits and are available in different colours and in bayonet and screw fittings. They are dimmable down to a **level** as low as 10% and still have all the cost saving, long life and environmental benefits.

Philips Dimmable Tornado

[Return to top](#)



Myth 4

They don't last as long as they say

This is probably a case of "you get what you pay for". The high quality brands will usually last the stated average life of 6,000 hrs. It is often the cheaper no-name brands that are less reliable as they use much lower quality components.

Another factor that can affect CFL lifespan is 'fast cycling'. This occurs with repeated turning on and off at short time intervals and it is possible that the life of the bulb is reduced.

The proposed Australian Government standards will require over 1,000 switching cycles per 6,000 hours of lifespan. That's like the turning a CFL on and off every six hours over their life.

The Philips CFL range exceed this and have 5,000 switching cycles per 6,000 hours of lifespan. That's like turning a CFL on & off every 70 minutes, a very unlikely occurrence.

So next time you buy, get one of the quality brands, they will last the stated time and save you money and frustration in the long term.

[Return to top](#)

Myth 5

They give a harsh white light

This is only partly true and is caused by many people being unaware that CFLs come in a variety of colours and therefore picked the wrong ones for the task. This is understandable as incandescent lamps only come in one colour, which is between 2700 – 3000 Kelvin.

The Kelvin temperature of a lamp refers to the colour of the light it emits, and is a comparison to natural outdoor light. For example, sunlight in the middle of a clear day is about 6500 degrees Kelvin.

In the table below we show the most common types of lighting, both natural and man made. In general warm-white creates a cosy, inviting ambience; while cool-white or daylight creates a stimulating ambience suitable for work or active pursuits.

Color temperature	Kelvin (K)	Suitable use
Candle	1900-2500	Being romantic
Incandescent	2700-3000	Reading & relaxing
CFL		
'Warm white'	2700-3000	Reading & relaxing
'Cool white'	4000	Kitchen & where detail needed
'Daylight'	6000-6500	Office, shops, workshops
Moonlight	4100	Running from werewolves
Day light, sun and clear sky	6000-6500	Being active outdoors

In regards to overall light quality, in a 2007 consumer test of seven brands of CFL by Popular Mechanics magazine they found that all of the CFLs produced a better quality of light than the incandescent lighting tested. www.popularmechanics.com/home_journal/home_improvement/4215199.html?page=2

In short, pick the right colour CFL for the job by looking at the packet for the Kelvin number or light description, buy a quality brand and you will be happy.

[Return to top](#)

Myth 6

A broken globe can contaminate your entire home

This is becoming one of the great urban myths and is WRONG. In fact to have a chance of making this myth possible you would have to break a globe daily in every room of your house. This would be a very expensive way of poisoning yourself !

CFLs do contain tiny amounts of mercury, up to 5 mg (5 one-thousandths of a gram) or about the same amount that would cover the tip of a ballpoint pen. This mercury is sealed inside the bulb and is essential for it to work.

To give you a comparison ordinary fluorescent tubes in current use contain approximately 15 mg of mercury per tube. These have been used safely in offices, shops, schools and other buildings around the world for over 50 years.

High quality bulbs tend to contain lower levels of mercury than some of the cheaper less reliable brands.

Bulbs do on occasions break but it is important that you understand that the risk is very, very low. We know of some press articles that have blown the issue of mercury out of all proportions simply because they failed to think the issue through.

Obviously you will be cleaning up a broken globe once in a blue moon. As an example, from the personal experience of the author he has broken two globes over almost 20 years of CFL use in his home. This is more than partly due to the more robust nature of CFLs as he has certainly dropped them quite a few times.

If you follow the procedure below any exposure in reality will be very low and well within standards set by our National Occupational Health and Safety Commission for workplace exposure i.e. as if you are working with mercury and exposed 8 hours per day as part of your job.

1. Open the windows and leave the room to ventilate for 30 minutes.
2. Use rubber gloves to pick up all the pieces and put it into a thick plastic bag – double bag if necessary. **Do not use a vacuum cleaner.**
3. Wipe the area clean with damp paper towels or disposable wet wipes.
4. Place the paper towel, gloves and any other waste in with the CFL pieces, seal it and dispose of in the waste bin outside

... and remember CFL lighting has been used safely around the world for 25 years.

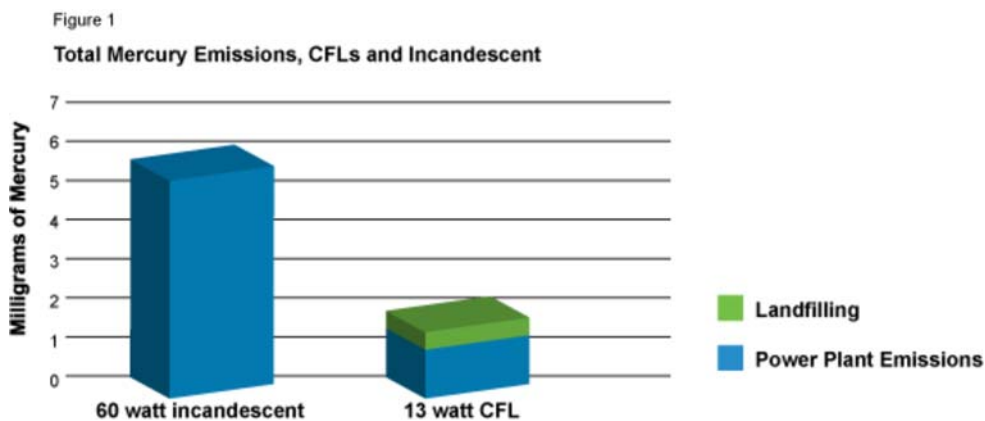
[Return to top](#)

Myth 7

They contain mercury which make them worse for the environment

It is so important that we all care for our environment. By switching to CFLs you will actually **prevent** much more toxic mercury from being released into the air from coal fired power plants than is contained in the bulbs themselves.

The chart below, from the US EPA, shows that even if the CFL is put into landfill at the end of its life there will be **70% less mercury** entering the environment when compared to emissions related to usage of a comparable incandescent.



Source – USA EPA & US Dept of Energy www.energystar.gov/cfls

Ideally, it would be best to prevent CFLs from going to landfill by recycling them. Some recycling facilities already exist and industry and the government are working on a broader recycling scheme.

To find out if you have a local CFL recycling facility call the National Recycling Hotline on 1300 733 712 or go to www.environment.gov.au/settlements/waste/lamp-mercury.html or visit www.recyclingnearyou.com.au.

[Return to top](#)

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