

# Comparing Consumer Rights in the AEMC and UK Smart Meter Rollouts

## Consumer Privacy (Part 3)

Dr Martin Gill

Governments are increasingly giving consumers the right to control their data. For example the UK energy regulator gives consumer the right to control how, when and even if their smart meter collects data. The Australian energy market mirrors the UK market, so “Why does the AEMC refuse to give Australian consumers similar rights?”

### Introduction

The Australian Energy Market Commission’s (AEMC’s) Power of Choice reforms attempt to encourage consumers to participate in the emerging energy market. In the emerging energy market consumers can (attempt to) lower crippling high energy costs.

“The reforms flowing from the AEMC’s Power of Choice review have laid the foundations for an energy system that is positioned to deploy new technologies”

Richard Owens

Despite only a minority of consumers being able to install these new technologies the AEMC’s Power of Choice reforms include rules ensuring in a little over 10 years’ time every Australian home will be required to accept an AEMC smart meter.

In addition to mandating the rollout of smart meters the AEMC then gives Australian consumers absolutely no control over what the smart meter measures and reports.

Despite the UK energy market being virtually identical in design to the Australian market, UK consumers are given the right to control both what their smart meter measures and reports.

### Invasive Technology

The application of data science techniques to big data invades consumer privacy. From Patel et al:

Data science techniques can extract a variety of high temporal resolution, household-specific features from the hourly electricity time series.

Traditionally the challenge for data scientists has been attempting to extract specific features from hourly measurements. The AEMC smart meters are required to make 5 minute measurements. Collecting 12 times as much data makes the AEMC smart meters far more invasive than any other smart meter.

Despite the AEMC smart meters being significantly more invasive Australian consumers are not allowed to control the collection of this data.

### Summary of Article

The UK and Australian energy markets are remarkably similar. In both markets a smart meter rollout is currently underway. Comparing the consumer rights the UK regulator gives UK consumers to control their smart meter against the total lack of control offered by the AEMC is enlightening:

- UK consumers can choose if they will receive a smart meter. The truth is Australian’s cannot.
- UK consumers can choose if the meter collects invasive interval data measurements. Australian’s cannot control the collection of even more invasive measurements.
- UK consumers can choose how often the smart meter is remotely read. Australian’s cannot.
- UK consumers can choose an In Home Display so only they see their energy consumption (their retailer cannot see the same data). AEMC smart meters do not support In Home Displays.
- UK consumers have to provide explicit consent for their meter data to be shared with third parties. Australian retail contracts still allow implicit consent so consumers can’t control access to their data.

UK and Australian electricity meters are used in exactly the same way. Both markets are deregulated so the meter readings are used to bill consumers. The readings are also used to bill retailers for the electricity they have sold to their customers.

The similarity between the two markets suggests there is nothing preventing consumers being given the same rights. Instead this analysis shows the AEMC chooses to give Australian consumers no rights while the UK regulator gives consumers complete control.

## Similarities between the Australian and UK markets

The design of the UK and Australian energy markets is remarkably similar. This is unsurprising because the AEMC largely watches what the UK regulator does and then implements similar rules a few years later. For example when the UK deregulated their market, the AEMC followed. When the UK regulator made retailers responsible for installing consumer smart meters, the AEMC followed.

When the UK regulator gave UK consumers the right to control their smart meter the AEMC did not. The unanswered question is “**Why not?**”

## Smart Meter Installation

The first difference between the UK and AEMC smart meter rollouts is UK consumers cannot be forced to accept a smart meter. At all times UK consumers can accept or reject a smart meter.

The AEMC *claims* consumers can choose a smart meter, however this claim is untrue. The AEMC’s rules include conditions forcing consumers to accept the installation of a smart meter.

Under the AEMC rules all new and replacement meters must be smart meters. When an existing meter fails or is deemed to have reached ‘end-of-life’ it will be replaced with an AEMC smart meter (all meters will reach ‘end-of-life’). No consumer choice.

## Isn’t mandating the rollout of smart meters at odds with giving consumers the Power of Choice?

Most meters will be replaced before they reach ‘end-of-life’ via the AEMC replacement clause, for example when a consumer installs a solar system or a large air-conditioner or buys an electric-vehicle. In all these cases the AEMC forces them to accept a smart meter.

While the UK regulator gives consumers the right to accept or reject a smart meter the AEMC rules do not give consumers the same right. The AEMC rules ensure all Australian consumers will eventually be forced to install an AEMC smart meter.

## Consumer Interval Data

Both the UK and AEMC smart meters are designed to collect large amounts of data revealing exactly how consumers use electricity. The UK smart meters can record electricity use every 30 minutes while the AEMC requires their meters collect this data every 5 minutes. While the AEMC’s 5 minute measurements

reveal far more intimate details about how consumers use electricity this is not the main difference.

The UK regulator gives consumers the right to refuse the collection of this intrusive data. The AEMC does not give Australian consumers the right to control access to this highly invasive data.

Even if the electricity tariff chosen by the Australian consumer does not require the interval data, the AEMC still requires the meter make 5 minute measurements and the retailer collect this data.

If a UK consumer does not want the highly invasive interval data to be collected they can limit the meter to far less invasive daily or even monthly data collection. The AEMC does not offer these options.

## Consumer benefits of In Home Displays

Minimal training is required to show consumers how to use an In Home Display to reduce energy costs. The displays also provide environmental benefits through reduced consumption. Recognising these benefits the UK regulator requires all their smart meters be capable of supporting an In Home Display giving all UK consumers access to these benefits.

Relevant to this discussion UK consumers can install an In Home Display while choosing not to allow their retailer access to their interval data. Consumers can still benefit from access to current electricity use and even historical usage data, confident the highly intrusive data is not available to their retailer.

Australian electricity retailers told the AEMC they could deliver a better solution. Instead of offering an In Home Display they would allow consumers to view their electricity use on their smart phone. Mislead by this empty promise the AEMC removed support for In Home Displays from their meters. The AEMC then added a new function raising genuine and significant privacy concerns for Australian consumers.

The reason consumers can use an In Home Display to reduce electricity costs is because it instantaneously shows the cost impact of appliance use. The new function added by the AEMC allows retailers to remotely collect instantaneous measurements of consumer electricity use. The AEMC innocently called this new function “Check Meter Status”.

Potentially “Check Meter Status” could be used to provide a cheap copy of an In Home Display. The retailer remotely reads instantaneous electricity use

and displays it on the customer's smart phone. This misses the point. The AEMC gives consumers no right to control retailer access to measurements even more invasive than interval data collection!

For example: Imagine how much tele-marketers would pay to know exactly what consumers are doing right now. Using "Check Meter Status" retailers could sell this data to tele-marketers so they can predict the best time to call. Most consumers would not see this as a benefit but a major invasion of their privacy.

The above example is a possibility. Data collected using "Check Meter Status" is not interval data. As such it is not protected by existing AEMC rules.

Clarification: Some Australian retailers have offered consumers the ability to view their electricity use on their smart phone. The phone only shows yesterday's electricity use. The 24 hour time delay ensures the consumer educational benefits offered by In Home Displays are lost. Trying to remember which appliances were used 24 hours ago is virtually impossible. The AEMC failed to understand the retailer offered smart phone alternative to an In Home Display does not deliver consumer benefits.

### Who gets to see Smart Meter Data?

If the AEMC has its way in the very near future basically anyone can get to see the data collected by AEMC smart meters. The AEMC disagrees with this assessment suggesting their rules govern who can see the data. They conveniently overlook several gaping holes.

Firstly while the AEMC assigned retailers the responsibility for installing consumer smart meters the same rules specify retailers must appoint a third party to manage the meter. At seminars discussing the AEMC smart meter rollout these new meter management companies discuss how selling consumer smart meter data allows them to lower the price of metering (compared to distributor offered meters). To be clear they don't intend to sell the interval data, instead they will sell insights provided by other data, for example using the "Check Meter Status" to indicate when consumers are at home (as discussed above).

Secondly the Consumer Data Right (CDR) will create a massive database storing everyone's smart meter data. The AEMC does not give Australian consumers

the right to refuse collection of their interval data and once collected it will be added to the CDR database.

Once the consumer interval data is in the CDR consumers will be able to give companies access to their data. The Government is assuring consumers they must give permission before any company can access their data, however to streamline the process the permission can be given verbally. The concern is when consumers engage with companies (e.g. a solar installer or electricity retailer) they unwittingly give implicit consent for them to access the data, for example "Do you have some past electricity bills available or can I download the data for you?".

There is another issue with the CDR. The Energy Use Data Model (EDM) provides 'research organisations' with access to consumer data. Consumers are not given the right to control if their data is made available via the EDM.

The UK regulator has addressed all these privacy concerns. Consumers can choose not to have their interval data collected and can control who has access to their data. The UK regulator states

### The choices you can make:

- How much data your energy supplier collects from your smart meter, e.g. monthly, daily or half-hourly meter reads
- Whether your supplier shares details about your energy consumption with other organisations
- Whether your supplier can use your meter reads for sales and marketing purposes

The AEMC chooses to offer Australian consumers **none** of the above data rights or options.

### Consumers are unaware the data is being collected

The AEMC quietly introduced the collection of highly invasive consumption data in the late 1990's. The late 1990's are best described as the age of 'data innocence'. In the 1990's no one was selling consumer data for the insights it provided. The AEMC is ignoring the dawn of the age of big data mining.

On-going data breaches and scandals are forcing Governments to rethink the level of control consumers are given over all their data. For example Europe's General Data Protection Regulation (GDPR) now requires companies explicitly request consumer consent before collecting their data.

To be clear the UK Government's smart meter rights are not a response to the GDPR. The UK regulator's consumer smart metering rights were published 5 to 6 years before the GDPR (in 2012). The date is significant. The AEMC smart metering rules were published in 2017 revealing the AEMC had 5 years to consider and ultimately reject every single one of the rights the UK regulator gave UK consumers.

It highlights how the AEMC's thinking remains firmly rooted in the 1990's.

- The AEMC has mandated the rollout of smart meters, but does not require retailers inform consumers the smart meter will collect 25,000 times more data than the meter it replaced.
- To support their smart meter rollout they encourage retailers to offer value added services by sharing the consumer's data with third party 'service providers'. The AEMC does not require retailers seek explicit consent before sharing this data.
- The AEMC places no restrictions on retailers using consumer smart meter data for marketing purposes.
- AEMC smart meters can provide significant insights into consumer behaviour. Legislation controlling who can access these insights is woefully inadequate.

Australian consumers require the ability to control access to smart meter data. This starts by giving consumers the right to refuse the installation of a smart meter. It continues by giving Australian consumers the right to control access to the invasive measurements made by the AEMC smart meter.

The UK regulator gives UK consumers the right to control their smart meter so "Why did the AEMC refuse to offer similar consumer rights?".

## Conclusion

Consumer confidence in electricity retailers has reached all-time lows. Consumers now rate Australian electricity retailers below door-to-door salespeople and telemarketers. It is therefore unsurprising the AEMC does not advertise their mandated rollout of smart meters gives retailers unrestricted access to, and use of, consumer smart meter data. This is ensured by removing all consumer rights to control or restrict retailer access.

The UK electricity regulator is encouraging the voluntary rollout of smart meters. While the UK and Australian electricity markets are virtually identical comparing the rights of consumers could not be more different. The UK regulator gives consumers the right to choose to accept a smart meter and if they accept they can then control access to the highly invasive measurements made by the smart meter.

The similarities between the Australian and UK electricity markets indicates there is no reason the AEMC could not give Australian consumers the right to control access to their smart meter data. Until they do Australian consumers must accept after the AEMC forces them to install a smart meter, consumers have no right to limit how companies they rate as "not representing the interests of consumers" are then given unrestricted access to, and use of, the highly invasive smart meter data.

## Citation

Please accurately attribute all quotes and references to this article. It would be appreciated if references also included the author's website [drmartingill.com.au](http://drmartingill.com.au).

## Comments or Questions?

The author is happy to receive comments or questions about this article. He can be contacted at [martin@drmartingill.com.au](mailto:martin@drmartingill.com.au)

## Summary

UK Consumer Rights	Australian Consumer Rights
Can choose if they want a smart meter	Effectively a mandated rollout with no right to refuse when a 'New or Replacement' meter
Can choose if the meter collects invasive 30 minute measurements of their energy use	No right to refuse collection of highly invasive 5 minute measurements of energy use
Can specify the meter is only to be read daily or monthly	No right to limit how often the meter is read (typically read several times a day)
Can choose to install an In Home Display to help reduce energy costs	AEMC smart meters do not support In Home Displays
Can view detailed usage data on their In Home Display while restricting retailer access to this data	AEMC smart meters support instant measurements but consumers are given no rights to control access to them
Retailers require explicit consumer consent before sharing data with third parties	Australia retail contracts still allow implicit consent so consumers can't control access to their data
Consumers can specify their data is not to be used for marketing purposes	No restrictions on use of consumer data

## References

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## About Dr Martin Gill

Dr Martin Gill is an independent consultant specialising in the provision of consumer advice. This advice is based on a deep understanding of the Australian energy industry and strong analytical skills. As a consultant he has prepared advice for consumer advocates, government regulators, electricity distributors, electricity retailers, asset operators and equipment vendors.

Dr Gill is a metering expert. During the National Smart Metering Program he facilitated the development of a specification for Australian smart meters. Innovative metering products developed by his teams have been externally recognised with the Green Globe Award, NSW Government's Premier's Award and Best New Product by the Australian Electrical and Electronics Manufacturers Association.

He currently represents the interests of consumers on a range of Standards Australia working groups including metering, renewable power systems, battery storage and demand management.