



# Digital Metering: Improving Service Delivery in NSW

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# 1. Improving digital meter service delivery

Digital meters (sometimes also referred to as ‘advanced’, ‘type 4’ or ‘smart’ meters) are devices that digitally measure when and how much electricity is used at your premises. Most digital meters include remote communication facilities to send information about your electricity use back to your retailer. Digital meters with remote communication facilities can also be used to turn your power on and off remotely, instead of requiring a technician to make a site visit to perform this task. This is referred to as ‘remote re-energisation and de-energisation’, which is the technical term that will be used throughout this paper. There are a range of benefits that digital meters can provide to electricity customers, including the provision of a wider range of services such as battery storage. A focus of this paper is on the remote re-energisation and de-energisation feature of digital meters.

Remote re-energisation and de-energisation can provide benefits for retailers as well as customers. For retailers, it can mean fewer site visits by field technicians and, for customers, it can mean improved experiences particularly for the over one million people in New South Wales (NSW) who move into a new home each year. These outcomes contribute to the NSW Government’s commitment to reduce the pressures on the costs of living.

In NSW, remote re-energisation and de-energisation are currently prohibited until 1 June 2020. This prohibition was initially introduced in December 2017 as a transitional measure. At the time, responsibility for the installation of digital meters shifted from distributors to retailers, an industry code on re-energisation and de-energisation was under development, and competitive metering services were newly emerging.

Ahead of the expiry of the prohibition in June 2020, the Government is consulting on what action, if any, may be required. The Government is particularly interested in feedback on any issues of concern from customers regarding remote de-energisation, and from industry regarding how it can demonstrate that it will ensure the safety of remote re-energisation.

This paper also seeks industry views on improving the process of digital meter installations in NSW. In December 2018, the NSW Independent Pricing and Regulatory Tribunal (IPART) released its final report on Retailers’ meter installation practices in NSW.

IPART’s final report included a recommendation that, *subject to safety regulations, Metering Providers should be able to deploy the resources necessary to undertake all tasks associated with installing a meter, including:*

- *operate any service fuse carriers required to de-energise a site for a meter installation within the customer’s electrical installation*
- *conduct live isolation work within the customer’s electrical installation, where necessary*
- *install ripple control relay devices, where required, and*
- *provide planned interruption notices on the spot, and carry out retailer-planned interruptions to all affected parties.*

IPART also made a finding that requiring certain metering work to only be done by persons with a level two Accredited Service Provider (ASP) certification may be excessive.

The Government is working through IPART’s recommendations and findings and is keen to understand the implications of any regulatory changes. Stakeholders have also approached the NSW Department of Planning, Industry and Environment with proposals to improve the customer experience with the installation of digital meters.

In relation to service fuse carriers, the Government understands that the technical and regulatory requirements for service fuse carriers and other types of isolation devices are complex. The Government is therefore keen to understand how this issue can be best managed. This is discussed in more detail in this paper.

In relation to live isolation work, under the Work Health and Safety Regulation 2017, distribution networks and most classes of ASPs are the only parties that can work with live electricity. This requirement is nationally harmonised.

The Government does not propose to change NSW regulations to allow metering providers to undertake live electrical work. Live electrical work is a high-risk activity that could have serious consequences if undertaken incorrectly. For this reason, only ASPs with relevant safety training can undertake live work. NSW prioritises safety and is not in a position to change nationally consistent workplace health and safety requirements.

The last two dot points of IPART's recommendation are respectively being addressed through the internal processes of the distribution networks and a national rule change proposal from the Competitive Metering Industry Group (CMIG).

As highlighted in this paper, there are already protections and tools in place to support consumers with respect to electricity disconnections. Safety requirements are also in place, however, industry could provide greater confidence regarding how it would minimise any safety risk associated with remote re-energisation.

Overall, feedback is sought on all the issues raised in this paper in the context of Government priorities to:

- reduce unnecessary red tape
- ensure consumers are adequately protected
- maintain appropriate safety measures, and
- ensure consistency with approaches in other jurisdictions where appropriate.

## 2. Transitional arrangements

In November 2017, transitional arrangements were established to support a smooth transition to electricity digital metering ahead of national changes that shifted the responsibility for digital meter installation from distributors to retailers. NSW transitional arrangements were put in place until 1 June 2019 to:

- prohibit the remote re-energisation and de-energisation of a customers' electricity supply through a digital meter, and
- require digital metering providers to submit safety management plans to the NSW Government.

The temporary prohibition was intended to provide time for industry to finalise a code of practice that it was developing to guide retailers in how they would use remote metering services including remote de-energisation and re-energisation. The Australian Energy Council's (AEC) voluntary Code of Conduct for Remote Service (the Remote Service Code) was finalised in May 2018. However, the Code does not define customer service requirements or safety protocols that retailers must undertake when remotely de-energising or re-energising a customer's electricity supply.

On 31 May 2019, the prohibition on retailers remotely de-energising and re-energising electricity supply was extended until 1 June 2020, and the requirement for digital metering providers to submit a safety management plan to the NSW Government was extended until 1 June 2021.

A 12-month prohibition on fees being charged for manual de-energisation and re-energisation for vulnerable customers under the National Energy Retail Rules (NSW) was also introduced. This was done to address concerns that the extension of the prohibition on remote de-energisation and re-energisation risked exposing vulnerable customers to unacceptable hardship and could undermine the NSW Government's priority to address bill pressures for these customers.

### 3. Consumer protections for remotely de-energising a customer's electricity supply

Around 30,000 NSW customers are disconnected each year.

The circumstances under which customers can be disconnected is regulated by the National Energy Retail Law (NERL) (NSW) and the National Energy Retail Rules (NERR) (NSW). This is largely a national framework, adopted in NSW through adoption legislation, that sets out consumer protection measures and requirements for electricity retailers and distributors with some additional NSW specific modifications. An outline of these requirements is provided in Appendix 1. In summary, these include measures requiring retailers to:

- Assist hardship customers by means of programs and strategies to avoid disconnection.
- Provide disconnection warnings and contact customers before any disconnection.
- Adhere to protections preventing disconnections in certain instances, such as for customers registered as having life support equipment.

Under the national framework, retailers have obligations to help customers when they face payment difficulties. The framework restricts retailers' ability to disconnect customers that are on a hardship program. The Australian Energy Regulator (AER) reports that in 2016-17 in NSW around 0.8% of electricity customers were on a hardship program. It is intended that disconnection for non-payment of bills is a last resort measure.

Some other jurisdictions provide additional consumer protections under their state-specific legislation, such as wrongful disconnection payments. These additional protections in other states are outlined in Appendix 2.

**Do you think any additional measures may be needed to protect vulnerable customers with digital meters if retailers are able to remotely de-energise electricity supply? Are you able to provide any examples or evidence in support of your view?**

## 4. Safety for remotely re-energising a customer's electricity supply

Digital metering providers in NSW are required to submit safety management plans (SMPs) to the NSW Government (NSW Fair Trading). The SMPs must demonstrate the various policies and procedures that the metering provider has in place to ensure that:

- meters are installed, operated and maintained in a safe and reliable manner
- meter installers carrying out work are appropriately qualified, trained and competent to affect a safe worksite, and
- the safety of customers, members of the public and the installation is maintained.

Currently, the requirement for SMPs is in force until 1 June 2021. It is proposed that the requirement is maintained permanently to support the safe operation of the sector and ensure that digital metering providers are appropriately managing installation risks.

**What are your thoughts on whether we should permanently extend the requirement for metering providers to submit safety management plans to NSW Fair Trading?**

If SMPs are maintained, they could also be used by metering providers and retailers to demonstrate how they would safely de-energise and re-energise a customer's electricity supply remotely. This could include detail on how retailers and metering providers would communicate with customers about remote de-energisation and re-energisation, and any circumstances in which remote de-energisation and re-energisation would not be applied (for example when the customer identifies recent work on the switch board).

The AEC's Remote Services Code for digital meters sets out the general approach retailers and metering providers should apply to remotely de-energise or re-energise a customer's premises. Further information on the Remote Service Code can be found on the AEC's website.

It is noted that, in Victoria, distributors and retailers can remotely de-energise and re-energise a customer's premises through a digital meter. However, there are several differences in how the Victorian energy and metering market is regulated. For example, Victoria does not apply the national metering rules or the national energy customer framework, and customers acquire a different type of digital meter. This means that there is limited comparability between Victoria and NSW.

**Let us know about safety measures that could be adopted by metering providers and retailers to support the safe operation of remote re-energisation. Are you able to provide any examples or evidence in support of your view?**



## 5. Isolating a customer's electricity supply

There are many different types of isolation devices that are connected to a meter to allow the separation of electricity supply in multi-unit dwellings. This enables meters to be serviced or replaced without interrupting electricity supply to other meters on the meter board. This is of particular importance in, for example, apartment blocks.

A service fuse is one of many different types of isolation devices that may be located on a power pole, on the side of the house near the roof, in an underground pit in front of the house, or inside the meter box. Other types of isolation devices include meter protection devices owned by the metering provider and service protection devices owned by the distributor, which are a fuse or circuit breaker typically located in the meter box.

The Government understands there are several issues being experienced with isolation devices.

In 2017, when responsibility for digital meters transferred from distributors to retailers under the National Electricity Rules, ownership and control of isolation devices remained unchanged. As a result, isolation devices may be owned by the distributor or a third party, depending on who installed the original device and assuming no alternative ownership arrangements were made.

This means that, while metering providers operate all digital meters, they cannot operate all isolation devices depending on who the owner is. Metering providers can only operate the isolation devices installed by or on behalf of the retailer. Metering providers cannot operate isolation devices originally installed and therefore owned by the distribution network. This is the case nationally.

Under the *Electricity Supply Act 1995 (NSW)*, customer connection services must be undertaken by ASPs authorised by the local distributor. The ASP Scheme Rules set out the different categories of distributor work that can be undertaken by an ASP. All ASP work requires a Notification of Service Work form to be submitted to the distributor, which will incur a fee.

A metering provider can engage an ASP with written consent from the customer to act on its behalf. Therefore, where an isolation cannot be performed by the metering provider, the metering provider or the retailer must request written consent from the customer to allow the metering provider to act on its behalf or request the customer to directly engage an ASP.

Under the *Gas and Electricity (Consumer Safety) Act 2017*, digital meter installations are regulated as part of the meter infrastructure in electrical installations. However, isolation devices are not currently part of these requirements and are regulated separately.

Metering providers in NSW must also comply with the 'Code for safe installation of direct-connected whole current electricity metering in NSW' (the Metering Code). Under the Metering Code, metering providers cannot work on all types of isolation devices. That is, metering providers cannot remove service fuse carriers that require an ASP and cannot work on equipment mounted on or within distributor network equipment (such as substations, poles and pillars).

When an ASP is working with a distributor owned isolation device, such as service protection devices, this work is ASP work. When the ASP is working with third party owned isolation devices, such as meter protection devices, this is electrical work. While the general substance of the work is similar, the qualifications and accreditation required are different.

The effect of these requirements is that the efficiency of meter installations is hindered due to complexity and a lack of streamlined arrangements.

The Government is interested in views on what options may be available to improve this situation and enhance customer experience, considering the Government's priorities.

**Tell us if you think metering providers should be able to operate any type of isolation devices, including the implications that these practices may have on safety and the extent to which they will improve the customer experience. Are you able to provide any examples or evidence in support of your view?**

## 6. Making a submission

Submissions can be provided by interested organisations or individuals on any aspect of this Consultation Paper or relevant matters in writing.

Submissions will be made publicly available. If you do not want your personal details or any part of your submission published, please indicate this clearly in your submission. Automatically generated confidentiality statements in emails are not enough. You should also be aware that, even if you state that you do not wish certain information to be published, there may be circumstances in which the Government is required by law to release that information (for example, in accordance with the requirements of the *Government Information (Public Access) Act 2009*).

Additional copies of the Consultation Paper can be downloaded from [www.haveyoursay.nsw.gov.au](http://www.haveyoursay.nsw.gov.au)

Please forward your submission to [energy@planning.nsw.gov.au](mailto:energy@planning.nsw.gov.au) with the subject: STAKEHOLDER SUBMISSION – DIGITAL METERING CONSULTATION PAPER

**The closing date for submissions is Sunday 15 September 2019.**

# Appendix 1 – Existing consumer protections under the National Energy Retail Law and Rules relating to disconnections

Protections for customers under the National Framework	Requirements
<p>Hardship customers (NERL 43, 45, 46, 50(1), and NERR 33, 34, 75B)</p>	<p>Retailers must:</p> <ul style="list-style-type: none"> <li>• Implement a customer hardship policy that has been approved by the Australian Energy Regulator and publish on the retailers' website.</li> <li>• Provide hardship customers with certain information about hardship policies, concessions and rebates – retailers cannot place customers experiencing payment difficulties on a shortened collection cycle.</li> <li>• Assist hardship customers by means of programs and strategies to avoid disconnection.</li> <li>• Not disconnect hardship customers or residential customers that are adhering to a payment plan.</li> </ul> <p>De-energisation due to inability to pay energy bills should be a last resort option.</p>
<p>Reminder notices and Disconnection warnings (NERR 109-110)</p>	<p>Retailers must issue reminder notices to customers when a bill is overdue and provide customers with sufficient time to pay.</p> <p>If the customer does not pay the bill in time, retailers must issue a disconnection warning notice ahead of a disconnection.</p>
<p>Contacting customers (NERR 111)</p>	<p>Retailers must make their best efforts to contact the customer between sending the disconnection warning notice and disconnection.</p> <p>Where the customer is a hardship customer, the retailer must not arrange disconnection unless the customer has been offered payment plans and those payments plan offers have not been successful.</p>
<p>Life Support Customers (NERR 116)</p>	<p>Retailers must not de-energise premises registered as having life support equipment. Retailers and distributors have obligations to maintain and update the register of all customers with life support equipment, regularly update the information, and add customers to it as soon as they become informed those customers have life support equipment.</p> <p>If customers with life support equipment fall into arrears, the retailer must pursue avenues other than disconnection to collect debts.</p>
<p>Timing of disconnections (NERR 117)</p>	<p>Disconnections cannot take place outside of business hours, on weekends and public holidays.</p>

Protections for customers under the National Framework	Requirements
Restrictions on de-disconnections (NERR 116, 120)	<p>Disconnections cannot occur if a complaint/dispute resolution process is occurring.</p> <p>Disconnections cannot occur if the outstanding debt is less than the debt threshold (\$300).</p>
Wrongful disconnection (NERL 4, 308 and Schedule 1 of NERL Regulations)	<p>Retailers can be fined \$20,000 by the AER for breaching the disconnection requirements (listed above).</p> <p>Additionally, retailers must repay disconnection charges to the customer.</p>
Reconnection after disconnection (NERR 121, 122)	<p>Retailers are obliged to arrange for reconnection if there is a request made by the customer and charges are paid.</p> <p>Request for reconnection after de-energisation in a metro area usually occurs the next business day if the request is made in the morning or late afternoon.</p> <p>Request for reconnection in non-metro areas are usually completed within two business days.</p>

## Appendix 2 – Other States’ specific de-energisation consumer protections

Category	Specific protections
Wrongful disconnection frameworks	<p><b>Queensland</b></p> <p>If a customer disconnection doesn't meet the minimum legal requirements (e.g. if they aren't given enough notice), they will be entitled to a \$142 'Guaranteed Service Level' payment from their distributor. This is required under section 2.3.3 of the Electricity Distribution Network Code (QLD).</p> <hr/> <p><b>Victoria</b></p> <p>If a customer's retailer disconnects their electricity supply without meeting the minimum legal requirements (e.g. failing to give them a certain amount of notice), the retailer must pay them \$500 per day that the disconnection continues.</p> <p>The Essential Service Commission (the Victorian Government regulator) may issue the retailer with a penalty of up to \$5,000 per wrongful disconnection. This is permitted under section 54H of the Essential Services Commission Act 2001 (VIC).</p>
Retailer obligations to struggling customers	<p><b>Victoria</b></p> <p>Victoria implemented a new 'Payment Difficulty Framework' under its Energy Retail Code (VIC) on 1 January 2019 which imposes a range of new obligations on electricity retailers. For example:</p> <ul style="list-style-type: none"> <li>• Retailers are required to make forms of standard assistance available to help customers avoid getting into arrears. The retailer must choose to make at least three forms of payment assistance available, such as the ability to defer one bill per year or payment at different intervals (e.g. to pay bills fortnightly instead of quarterly).</li> <li>• Retailers are required to provide 'tailored assistance' to customers with more than \$55 of outstanding debt, which can include payment plans which stretch repayments over up to two years.</li> <li>• As part of tailored assistance, their retailer must also offer them: <ul style="list-style-type: none"> <li>○ Advice about the energy tariff most likely to minimise their future energy costs, based on their previous usage patterns and payment history.</li> <li>○ Practical assistance to help the customer reduce their energy use, which may include appliance replacement and energy auditing where this would be useful.</li> <li>○ Regular information about how the customer is progressing with reducing their energy costs.</li> </ul> </li> <li>• Under tailored assistance, an initial six-month freeze on arrears payments while the customer works to lower their consumption.</li> <li>• If a customer misses a repayment, retailers must contact them to provide information about assistance which the customer is entitled to. This may include a revised payment plan proposed by the customer.</li> </ul> <p>Retailers are required to continue to provide tailored assistance unless certain circumstances occur, such as the customer refuses or fails to take reasonable action towards repaying their arrears.</p>

## Appendix 3 – Other States’ safety protections for remote re-energisation and de-energisation

Jurisdiction	Protections
Queensland	The <i>Electricity Safety Regulation 2013 (Queensland)</i> prohibits remote re-energisation.
Victoria	<p>In Victoria, distributors and retailers are able to remotely de-energise and re-energise a customer’s premises using digital meters within two hours of the request unless the customer has requested a specific time. There are exceptions for life support customers and for some other situations. Victorian distributors are required to operate safely under the <i>Electricity Safety Act (Victoria) 1998</i> and have processes under the Electricity Safety Management Systems (VIC) to prevent safety issues at the customer’s installation. The remote de-energisation and re-energisation processes and Memorandum of Understanding between distributors, retailers and the safety regulator, is an extension of the distributors’ Electricity Safety Management Plans (ESMS) that Energy Safe Victoria has accepted.</p> <p>Victorian digital meters have an in-built safety function which does not allow re-energisation, if any electricity usage is detected (referred to as ‘auto-disconnect’).</p> <p>When a customer requests that their power is de-energised or re-energised, Victorian retailers are required to perform checks to ensure the remote re-energisation or de-energisation service can be performed safely. This involves reading out an approved ‘script’ to the customer to inform them about safety risks and to understand why the request is being made, prior to requesting that the distributor de-energises or re-energises. This script and retailer processes are provided to the Victorian electrical safety regulator, Energy Safe Victoria. Once satisfied, re-energisation and de-energisation is safe.</p> <p>Victorian retailers request this service through the market business to business system. Retailers cannot remotely de-energise a customer unless they can make verbal contact with them and read through a regulator-approved script. This script confirms the time when the de-energisation will occur and checks that the customer does not rely on any electrically powered life support equipment.</p> <p>Retailers must contact customers before re-energisation to ensure that customers have switched their power off at the mains before remote re-energisation can occur. This is to prevent fire hazards or possible electrocution. If a customer’s digital meter detects electricity usage immediately following re-energisation (indicating that the mains was not turned off), then the meter must automatically de-energise the premises.</p> <p>When the distributors receive a request from retailers, they will check the details of the meter (i.e. that it corresponds to address) and check its life support customers.</p> <p>Electrical workers doing wiring work within a remotely de-energised premises must act as though the premises is live, in case remote re-energisation occurs accidentally.</p>

Jurisdiction	Protections
South Australia	<p>There is no specific prohibition on remotely re-energising or de-energising a customer's electricity supply by digital meters.</p> <p>In practice, it is understood that retailers are not performing remote re-energisation or de-energisation.</p>
Australian Capital Territory	<p>There is no specific prohibition on remotely re-energising or de-energising a customer's electricity supply by digital meters.</p> <p>In practice, it is understood that retailers are not performing remote re-energisation or de-energisation.</p>
Western Australia	<p>Under Western Australia's Electricity (Network Safety) Regulations 2015, Horizon Power, Western Power, BHP and Rio Tinto networks are required to meet AS5577 'Electricity Network Safety Management Systems'.</p> <p>The safety aspects of remote re-energisation and de-energisation through digital meters are examined through a quantitative risk assessment to ensure residual risk is as low as reasonably practicable. Hazard mitigations determined by this assessment are then incorporated into the re-energisation and de-energisation process, implementation and ongoing monitoring.</p> <p>Remote de-energisation is available if an immediate safety concern arises.</p>