



Hon Lily D'Ambrosio MP

Minister for Energy, Environment and Climate Change
Minister for Solar Homes

8 Nicholson Street
East Melbourne, Victoria 3002
Telephone: 03 9637 9504
DX210098

Mr John Pierce AO
Chair
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Ref: MBR040442



Dear Mr Pierce

VICTORIAN JURISDICTIONAL DEROGATION FROM THE NATIONAL ELECTRICITY RULES

I am writing to request that the Australian Energy Market Commission (AEMC) make an urgent rule change for a jurisdictional derogation in relation to the National Electricity Rules (NER).

Victoria seeks a derogation to allow the Australian Energy Market Operator (AEMO) to contract for reserve electricity capacity under the Reliability and Emergency Reserve Trader (RERT) mechanism on a multi-year basis.

Pursuant to section 96(1) of the National Electricity Law (NEL), Victoria requests that the AEMC assess this request in an expedited manner as an urgent rule, in order to allow the derogation to come into effect prior to Victoria's peak electricity demand period this summer.

As required under 91(3) of the NEL, I have consulted with my counterparts in the other jurisdictions in relation to the rule change request.

Please find attached the urgent rule change request which includes a proposed draft amendment to the NER.

Should you have any questions, please contact Mr Paul Murfitt, Executive Director, Energy Sector Reform, Department of Environment, Land, Water and Planning, by email paul.murfitt@delwp.vic.gov.au or on (03) 9637 8235.

Yours sincerely

Hon Lily D'Ambrosio MP
Minister for Energy, Environment and Climate Change
Minister for Solar Homes

7 / 10 / 19

Request for urgent change to the National Electricity Rules to allow Extended RERT Contracting in Victoria

Department of Environment, Land, Water and Planning, Victoria

October 2019

Contents

| | |
|---|----|
| 1. Purpose | 3 |
| 2. Heightened risk of load shedding | 3 |
| 3. Planned and unplanned outages of thermal generators..... | 4 |
| 4. Short-term solution is required | 4 |
| 5. Extended contract duration | 5 |
| 6. Dependence upon ageing coal-fired generation | 6 |
| 7. Scope of Rule Change..... | 7 |
| 8. How the Proposed rule contributes to the National Electricity Objective (NEO)..... | 10 |
| 9. Rule Making Test Satisfied | 11 |
| 10. Consultation | 11 |

1. Purpose

This request seeks an urgent amendment to the National Electricity Rules (NER) to allow the Australian Energy Market Operator (AEMO) to contract emergency reserves under the Reliability and Emergency Reserve Trader (RERT) on a multi-year basis for up to three years in Victoria.

There has been a material change in conditions since the Australian Energy Market Commission (AEMC) made its final determination on the Enhanced RERT in May 2019. In its March 2018 rule change request, AEMO sought amendments to the NER for multi-year contracting to allow it to unlock more reserves to manage potential risks of unserved energy. Victoria supported this position in its April 2019 submission to the AEMC. The AEMC considered AEMO's proposal and all submissions but determined, in its May 2019 final determination, not to adopt multi-year contracting.

Since that determination was made, new information has become available on the potential outlook in Victoria, through the 2019 Electricity Statement of Opportunities (ESOO) which identifies a risk of insufficient supply that could lead to between 125 Megawatts (MW) and 560 MW of unserved energy (USE) in Victoria during summer 2019-20.¹

2. Heightened risk of load shedding

The 2019 ESOO forecasts tightly balanced electricity supply and demand, with Victoria expected to breach the reliability standard in 2019-20. If extended into the 2019-20 peak summer period, the current prolonged unplanned outages of two major generating units (Loy Yang A and Mortlake) pose a heightened risk of an even greater shortfall in electricity supply.

AEMO's modelling projects an 18% probability (or roughly one-in-five chance) that neither of these generating units will be available over summer 2019-20. In this case, expected USE in Victoria would rise to 0.0047% and may be as great as 0.0148% in the worst case scenario.²

If no additional supply is secured, involuntary load shedding may be experienced in Victoria during extreme weather events, equivalent to between 260,000 and 1.3 million households being without power for four hours.³

There has been insufficient investment in the National Electricity Market (NEM) to support necessary dispatchable reserve capacity. Presently, the Reliability and Emergency Reserve Trader (RERT) is the only mechanism at AEMO's disposal through which to procure emergency reserves prior to being needed in summer 2019-20. However, the nature of the RERT, as it is currently designed, makes it a reactionary mechanism that imposes higher costs on consumers and does not deliver sufficient reserves to support reliability during the energy transition. Extended duration contracts are required to attract new reserve capacity generation and minimise the cost on consumers.

Given implications for reliability during summer 2019-20, this rule change request relates to a matter that, if not made as a matter of urgency, will result in an inability to contract sufficient RERT reserve capacity over the peak summer demand period in 2019-20 which will imminently prejudice or threaten the reliability of the national electricity system as it operates in Victoria. Pursuant to

¹ Australian Energy Market Operator (AEMO), 2019 Electricity Statement of Opportunities (2019 ESOO), August 2019 at p.3

² AEMO, 2019 ESOO at p.11

³ 2019 ESOO at p.3

sections 87 and 96(1) of the National Electricity Law (NEL)⁴, Victoria seeks that the AEMC assess this rule change request in an expedited manner as an urgent rule.

3. Planned and unplanned outages of thermal generators

The outlook for Victoria during summer 2019-20 is informed by advice from asset owners that one Loy Yang A unit (500 MW) and one Mortlake unit (259 MW), currently offline for unplanned maintenance, will be back in service in mid-December 2019.⁵

However, due to the damage resulting from the failures, and the extensive repairs required, delayed return to service of one or both units is considered likely.⁶ Generators on such extended outages are often delayed in their return to service due to new, unforeseen issues with the plant that are revealed during repair and recommissioning, or due to delays as parts need to be ordered, sourced, and shipped to Australia.

For 2019-20, the first year of AEMO's five-year reliability forecast, AEMO is 'operationalising' the assessment of expected reliability of supply in Victoria as best as possible within the current rules by taking into account estimated probabilities of delayed return to service.

Based on operational experience, AEMO's probability approach to forecasting modelling has assumed:

- a 30% probability that Loy Yang A Unit 2 remains out of service until 1 March 2020; and
- a 60% probability that the Mortlake unit remains out of service until 1 March 2020.⁷ ⁸

As a result, AEMO forecasts tightly balanced supply and demand in Victoria for 2019-20 and the new generation coming online is forecast to make little improvement in the reliability outlook over 2020-21 and 2021-22.⁹ AEMO believe Victoria will remain vulnerable to high impact events such as prolonged or concurrent generator outages, as experienced in 2018-19.

While the short-term outlook in years 2020-21 and 2021-22 does not currently indicate the same shortfall in USE, it should be recognised that these forecasts are volatile. They depend on the state of availability of an ageing baseload thermal generation fleet at any given point in time.¹⁰ As an example, the 2018 ESOO did not forecast a shortfall in Victoria during summer 2019-20 and yet the 2019 ESOO did, drastically reducing the time available for the market to respond.

4. Short-term solution is required

This derogation is a short-term measure designed to address a short-term reliability problem – consequently, it will expire after five years (i.e. in 2025). This period is long enough to encompass the closure of the Liddell power station in 2022-23, which represents the next significant danger

⁴ *National Electricity (South Australia) Act 1996* Schedule – National Electricity Law

⁵ 2019 ESOO at p.10

⁶ *ibid*

⁷ AEMO, 2019 ESOO at pp.10-11

⁸ AEMO, Generator outage analysis for 2019 ESOO, 2019

⁹ 2019 ESOO at p.12

¹⁰ The AEMC Reliability Panel *Final Report into the Reliability Standard and settings review 2018* (AEMC Reliability Panel Final Report, 30 April 2018) forecast (at p.59) the highest level of unserved energy under the base scenario for Victoria as barely measurable for the 2019-20 summer peak demand period at around one three hundredth of the 0.002% USE reliability standard. This is to be compared to the 2019 ESOO, released on 22 August 2019 which forecast expected average USE in excess of 0.0025% USE for the same period, and potentially as high as 0.0047% USE.

period for Victorian supply reliability beyond the current forecast shortfall and the coming online of new generation.

AEMO has indicated that existing intervention measures (such as the utilisation of demand-response RERT) can not address the magnitude of the forecast USE. In the 2019 ESOO, a reliability gap of between 215 MW and 560 MW has been identified.¹¹ AEMO has further indicated in relation to the 2019-20 peak summer demand period:

If Victoria were to experience another extreme heatwave that drove one-in-10 year peak demand, the expected USE would rise to an unprecedented 0.0148%, over seven times the current reliability standard. To manage an event like this, AEMO would be required to load shed the equivalent of between 260,000 and 1.3 million households in Victoria for four hours, typically during extreme temperatures or heatwaves.

Based on the relative probabilities of delays, approximately 125 MW of additional firm capacity would be required to reduce the expected level of USE to the current reliability standard.

Even if 125 MW was procured, should neither unit return to service, the expected level of USE would still be well above the standard at 0.0038%.¹²

New measures contained in the Enhanced RERT,¹³ which will come into effect in March 2020, will not be able to meet the immediate operational challenges faced in Victoria. Similarly, the market measures incorporated into the Retailer Reliability Obligation (RRO), which came into effect on 1 July 2019, cannot assist in resolving the shortages forecast for the coming summer peak period in Victoria. The RRO is a long-term solution to forecast capacity shortages. “In the first three years this can [only] be done 15 months or more before the start of the identified gap, and after that must be consistent with the [Australian Energy Regulator’s] timeframes.”¹⁴

An urgent solution is required to meet Victoria’s forecast needs for the forthcoming 2019-20 peak summer demand period.

5. Extended contract duration

As it is currently designed, the RERT is a mechanism allowing AEMO to procure emergency reserves months in advance of when a supply shortfall is forecast and used as a last resort to reduce the risk of USE. This is not an effective means of managing risk in the long term, particularly as the Victorian electricity market undertakes a transformation driven by the ageing thermal generators and where there is a persistently higher risk of USE. However, it is an important short-term measure.

RERT contracts in the Victorian region are currently dominated by single-year, demand-response capacity.

¹¹ AEMO, 2019 ESOO at p.74

¹² *ibid*

¹³ In AEMO’s submissions to AEMC in November 2018 and AEMC’s *Rule Determination, National Electricity Amendment (Enhancement to the Reliability and Emergency Reserve Trader Rule 2019)* dated 2 May 2019, the proposed changes to the existing RERT mechanisms were referred to as ‘Enhanced RERT’, for example at pp.xiv and 1. Amongst other measures, the Enhanced RERT will link the procurement trigger and RERT volumes to the reliability standard, provide some flexibility to AEMO in respect of these reserves and operationalizing the reliability standard and will increase the procurement lead time from 9 to 12 months.

¹⁴ Australian Government, Department of the Environment and Energy, Retailer Reliability Obligation factsheet, 2019 (EN R084.0619)

While single-year RERT contracts have demonstrated that they can fill short-term peak demand supply gaps:

- indications are that maximum market availability for demand-side contracts has been materially reached;
- restricting RERT contracts to nine/twelve months is a barrier to participation for those parties who face significant upfront deployment costs (i.e. small-scale generation units); and
- small-scale generation contracts are potentially available, but require greater certainty to be able to cost-effectively recoup their investment within the term of the contract.

This type of supply would most likely be supplied by small-scale gas and diesel generation. Based upon past invitations to tender and preliminary discussions in anticipation of the 2019-20 summer peak demand period, the capital investment for this generation:

- is the same regardless of contract duration, but can be recovered more cost effectively over a multi-year contract;
- is more cost-effective than reserve capacity activated under medium and short-term arrangements; and
- once deployed, is more reliably available in years 2 and 3 of a multi-year contract, as opposed to annual arrangements.

Additional reserve generation and demand-response RERT capacity are different. Each RERT resource has different response lead times, activation conditions and response capability. Therefore, not all resources can necessarily be activated for a given shortfall event – this is particularly so for potential demand-side capacity contracted on the medium and short-term RERT Panel arrangements.¹⁵ Where relevant, the NER treats demand response capacity and additional, non-dispatchable generation RERT capacity as generic, when in practice, the relative activation, deployment and investment return models of these capacity sources are not comparable. In its submission to the Enhancement to the Reliability and Emergency Reserve Trader consultation¹⁶, AEMO stated:

While AEMO proposed to contract for up to three years, this will be done only if it is expected to lead to lower cost of RERT consistent with the RERT Guidelines and the RERT Principles under clause 3.20.2(b) of the NER.

Victoria maintains that multi-year contracting is appropriate in suitable circumstances.

Based on preliminary discussions with potential RERT supply side providers, the Department of Environment, Land, Water and Planning (DELWP) is aware that several parties have stated that they are unable to offer in resources below the value of customer reliability within the constraints of a one-year RERT contract. However, these same parties have indicated that they are able to provide substantial new energy generation resources at significantly lower annual cost if multi-year contracts were available.

6. Dependence upon ageing coal-fired generation

This rule change request will apply to Victoria and not to the rest of the NEM because of the reasons outlined above. Furthermore, Victoria is in a unique position in the NEM in that it has a

¹⁵ AEMO, Load Shedding in Victoria on 24 and 25 January 2019

¹⁶ AEMO, submission to the AEMC Consultation paper, p.5

disproportionate dependence on a relatively small number of brown coal generation units, which are becoming increasingly unreliable. This is illustrated by looking at the dominant fuel in each NEM region, its share of state electricity generation, and the number of generation units it comprises:

| State | Dominant fuel for electricity generation | Share of state generation, 2018-19 | No. units |
|-------|--|------------------------------------|-----------|
| NSW | Black coal | 84% | 16 |
| Qld | Black coal | 81% | 22 |
| SA | Gas | 48% | 24 |
| Tas | Hydro | 85% | 22 |
| Vic | Brown coal | 74% | 10 |

Unplanned outages appear to be increasing. The relative consequence of unplanned or forced outages of one or more coal-fired generation units is therefore greater for Victoria than any other jurisdiction. Since December 2017, there have been 183 outages at gas and coal-fired power stations across the NEM. The Loy Yang A and Yallourn power stations have suffered the most outages during this period, with 29 and 26 outages respectively. Over summer 2018-19, Victoria's coal-fired thermal generators had 16 major outages.

On 18 May 2019, Loy Yang A Unit 2 (500 MW) suffered an unplanned full outage, which continues. This outage followed an electrical short internal to the generator, which caused consequential damage. AGL's initial expectation was that it would take between two to four months to return the Unit to service pending results of internal generator inspections. Further technical assessments revealed a more extensive level of damage than was previously assessed, with return of the unit now delayed until December 2019.¹⁷

On 8 July 2019, Mortlake Power Station's Unit 12 (259 MW) also suffered an unplanned full outage, which continues. Whilst initial inspections may have revealed what initiated the failure of the unit, DELWP understands that a formal root cause analysis for the failure is yet to be completed. Unit 11 (which was not damaged in the outage) has also had a restriction of output by 23 MW to ensure that this generator will not be impacted by a similar failure. Origin Energy anticipate bringing Unit 12 back online by 20 December 2019.

Victoria's current, but transitioning, reliance on this ageing thermal baseload generation increases the State's exposure to potential capacity shortage during periods of peak summer demand.

As mentioned in Section 2, in the worst case of neither unit being available and Victoria experiencing a one-in-10 year peak demand, USE could jump to 0.0148% over the 2019-20 summer peak demand period.¹⁸ This is a potential supply shortage that can not be satisfied through existing RERT, Enhanced RERT or RRO measures.

7. Scope of Rule Change

Victoria proposes that the duration for long-notice RERT contracts be extended to periods up to 3 years. These contracts would commence within existing procurement lead times (9 months until 26 March 2020 and 12 months thereafter) of a forecast shortfall in capacity identified in the annual

¹⁷ AGL Media Release, 7 June 2019 as at <https://www.agl.com.au/about-agl/media-centre/asx-and-media-releases/2019/june/fy20-impact-of-extended-unit-outage-at-loy-yang> on 3 September 2019

¹⁸ AEMO, 2019 ESOO at p.11

ESOO, as outlined in the current clause 3.20.3(d) of the NER.¹⁹ However, to enable this extended period of duration, regardless of the ESOO USE forecasts in subsequent years (t+2 and t+3) these contracts would expressly remain valid, enabling availability payments for the duration of the contract where cost-effective and justified. This is consistent with the information requirements outlined in section 4.1 of the RERT Guidelines²⁰ and the application of the RERT Principles under clause 3.20.2(b) of the NER.²¹

It is not proposed that AEMO would be obliged to enter contracts for multi-year RERT capacity reserves. Rather, AEMO will be empowered to use its discretion within the parameters articulated in the NER and the RERT Guidelines to achieve best outcomes for consumers, balancing reliability and costs.

The NER does not currently prescribe a specific contract duration for emergency reserve contracts, however, the procurement lead time specified in the NER has been interpreted and implied as a maximum limit on the duration of these contracts. The proposed derogation will separate these contractual concepts, as has already been initiated by the rule changes to take effect from 26 March 2020.²²

The derogation is designed to address a short-term reliability problem. It is therefore proposed that this arrangement continue for five years to 30 June 2025. Long-term resolution of supply reliability is anticipated to be resolved by other measures including:

- on-market investment in generation and transmission augmentation;
- the Retailer Reliability Obligation; and
- the Energy Security Board's Post 2025 Market Design for the NEM.

The derogation will not adversely impact investment in the NEM, given its limited scale and duration (to 2025). Whilst it is cognisant of possible further consideration of the application of the reliability standard by market bodies, the derogation does not propose adjustment to the reliability standard or reliability settings which underpin long-term investment incentives.

Consequently, Victoria proposes the following amendment to the National Electricity Rules:

Clause 9.5 of Part A of Chapter 9 of the National Electricity Rules is amended as follows:

9.5 Arrangements for Chapter 3 – Reliability and Emergency Reserve Trader

9.5.1 Commencement – transitional application

Clause 9.5.2 of this rule commences on the commencement date and applies until 26 March 2020.

¹⁹ As of 26 March 2020, this period will be extended to 12 months by virtue of clause 8 of the *National Electricity Amendment (Enhancement to the Reliability and Emergency Reserve Trader) Rule 2019 No.3* replacing clause 3.20.3 and substituting a new clause 3.20.3(f)(2)

²⁰ The RERT Guidelines, issued by the AEMC Reliability Panel and effective from 25 July 2019 outline the detailed process of engaging and activating RERT. The contents of the RERT Guidelines are detailed in clause 3.20.8 of the NER and incorporate the two RERT Principles outlined in clause 3.20.2(b) of the NER.

²¹ Under clause 3.20.2(b) of the NER, AEMO must have regard to the following principles (*RERT principles*) in exercising the RERT:

- actions taken should be those which AEMO reasonably expects, acting reasonably, to have the least distortional effect on the operation of the *market*; and
- actions taken should aim to maximise the effectiveness of *reserve contracts* at the least cost to end use consumers of electricity.

²² AEMC, *Rule Determination, National Electricity Amendment (Enhancement to the Reliability and Emergency Reserve Trader Rule 2019)* dated 2 May 2019 at pp.133, 135

9.5.2 Reserve contracts – transitional (Clause 3.20.3)

Reserve contracts entered into in accordance with clause 3.20.3:

- (a) may be negotiated, renegotiated and entered into at any time up to 26 March 2020;
- (b) subject to paragraph (c), may be for a period that is longer than the period of any forecast breach of the *reliability standard*;
- (c) may have a duration of not more than 3 years; and
- (d) subject to their terms, remain valid for the duration of the contract, notwithstanding:
 - i. the publishing of subsequent information relevant to the RERT Guidelines or the reliability standard implementation guidelines or otherwise; or
 - ii. the occurrence of any event, matter or thing,

whereby the reliability of *supply* in the Victorian *region* is ensured.

9.5.3 Commencement and expiry

Clauses 9.5.4 and 9.5.5 of this rule commences on 26 March 2020 and applies until 30 June 2025.

9.5.4 Reserve contracts (Clause 3.20.3)

Reserve contracts entered into in accordance with clause 3.20.3:

- (a) may be negotiated, renegotiated and entered into at any time in the 12 months immediately prior to their being entered into;
- (b) subject to paragraph (c), may be for a period that is longer than the period of any forecast breach of the *reliability standard*;
- (c) may have a duration of not more than 3 years; and
- (d) subject to their terms, remain valid for the duration of the contract, notwithstanding:
 - i. the publishing of subsequent information relevant to the RERT Guidelines or the reliability standard implementation guidelines or otherwise; or
 - ii. the occurrence of any event, matter or thing,

whereby the reliability of *supply* in the Victorian *region* is ensured.

9.5.5 Definitions

In this clause 9.5:

“commencement date” means the date on which the *National Electricity Amendment (Victorian Jurisdictional Derogation – Reliability and Reserve Trader) Rule 2019* comes into effect.

8. How the Proposed rule contributes to the National Electricity Objective (NEO)

AEMO is required under section 49 of the NEL to carry out its functions having regard to the national electricity objective. The national electricity objective, as outlined in section 7 of the NEL, notes:

The objective of this Law is to promote the efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to -

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.²³

This proposed rule change is aimed at making RERT a more effective instrument in the short term to manage the currently forecast risk of power disruption to Victorian households and businesses in circumstances like extreme weather events. It allows AEMO greater flexibility to procure a broader base of power supplies for use in emergencies in Victoria.

The proposed changes to the RERT will contribute to a more reliable supply of electricity where, in light of increased variability around demand²⁴ and the changing generation mix, there is a risk that the current RERT response mechanisms may not be adequate to respond to existing and emerging power system events in Victoria. To this end, it must be noted that involuntary load shedding, which remains a feature of the NEM, is a relatively blunt intervention instrument and does have an economic and social cost²⁵ that may be mitigated by other measures, including extended RERT contracting.

The proposed rule change would be expected to deliver a net economic benefit as:

- extended contract duration would mitigate the risks of electricity supply disruption, the costs of which are high. It is estimated that the load shedding event of 24 and 25 January 2019 cost consumers approximately \$104M using the current value of customer reliability;²⁶
- AEMO will only enter into multi-year contracts for RERT where it is more cost effective than entering short term contracts; and
- RERT providers have advised that longer term contracts have significantly lower costs for each MW of available capacity compared to short term contracts.

Maintaining supply by procuring reserves through reserve contracts may create more efficient outcomes compared to involuntary load shedding because involuntary load shedding does not differentiate between customers. Further, an extended duration for RERT reserve capacity contracts better enables the market to deliver additional capacity through new reserve generation capacity, at more cost-effective prices.

Procuring RERT reserves by this mechanism may also contribute to delivering more efficiently priced electricity by facilitating the development of further demand response options, as has been

²³ *National Electricity (South Australia) Act 1996* – National Electricity Law Schedule, section 7

²⁴ AEMO, 2019 ESOO at pp.13, 28, 31

²⁵ AEMO, Load Shedding in Victoria on 24 and 25 January 2019 at p.39

²⁶ Watt Clarity by Global Roam, Generator Report Card, May 2019, p.1

observed with the ARENA/AEMO Demand Response trial.²⁷ Over time, this response may become available to the energy market, reducing the cost of electricity for consumers.

9. Rule Making Test Satisfied

Whilst this proposed jurisdictional derogation does not expressly fall into any of the grounds in section 89 of the NEL (eg. transfer of jurisdictional regulation or maintenance of jurisdictional specific arrangements),²⁸ AEMC has previously rejected the view that if a proposed derogation does not meet the requirements of the three matters outlined in section 89 of the NEL it must not make the rule.²⁹

To this end, section 89 of the NEL does not determine jurisdictional derogations. Rather, it outlines matters the AEMC must have regard to. Similarly, no requirement is imposed on the AEMC to be satisfied that:

- any of the sub-sections of section 89 applies; in addition to
- the terms of section 88(1) of the NEL (Rule Making Test) also being satisfied.

Section 88 provides that the AEMC may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective. This operates independently of section 89.³⁰

10. Consultation

Given the unique circumstances applying to the State of Victoria, this rule change is a jurisdictional derogation to the NEL. As required by section 91(3) of the NEL, the Ministers of the participating jurisdictions were consulted on this rule change request by direct correspondence. Other jurisdictions may also choose to make a submission on the AEMC consultation paper as part of the expedited rule change consultation process.

²⁷ In late 2017, Australian Renewable Energy Agency (ARENA) and AEMO joined forces to trial how innovative sources of demand response could be delivered in emergency situations. Under the Short Notice RERT Trial, ARENA funded 10 projects over a three year period, to test different demand response approaches and technologies across commercial, industrial and residential energy users. Just over one year into the trial, three of the projects operating in Victoria (EnelX, United Energy and Powershop) quickly responded to AEMO's RERT activation on 24 and 25 January 2019.

²⁸ The AEMC did not set out section 89(c), noting in footnote 42 on page 16 that it was not relevant to the jurisdictional derogation that Victoria was then seeking. Section 89(c) is similarly not relevant to the current proposed derogation, as it provides for possible exemption of generating, transmission or distribution systems and facilities from technical standards in the Rules.

²⁹ *Rule Determination: National Electricity Amendment (Victorian Jurisdictional Derogation, Advanced Metering Infrastructure Roll Out) Rule 2009*, 29 January 2009 (AMI Derogation Determination) at p.16

³⁰ *ibid*