



Authorisation of Virtual Power Plant operations

The Australian Energy Market Operator (**AEMO**) has been undertaking a Virtual Power Plant (**VPP**) Demonstration Program.

The Essential Services Commission (**Commission**) has exempted enrolled participants in that program from the requirement to hold an electricity generation licence for those operations.

That exemption ceases to have effect on 30 June 2021.

Noting that the operation of VPPs in the National Electricity Market (**NEM**) is a new and developing area, the Commission is seeking stakeholder comment on the potential extension and variation of the current exemption, and on appropriate licensing conditions for VPP operators.

We invite written submissions by **22 April 2021**, and would be pleased to meet with stakeholders for a briefing upon request.

Virtual Power Plant

A VPP is a group of resources that are coordinated using software and communication technology. In Australia, grid-connected VPPs tend to focus on coordinating rooftop solar photovoltaic, battery storage and controllable load devices which can be located over a wide area. The operation of VPPs in the NEM is a new and developing area.

AEMO Virtual Power Plant Demonstration Program

AEMO has been undertaking a VPP Demonstration Program in collaboration with other Australian energy regulators. Information about the program is available on AEMO's website. AEMO has published three knowledge-sharing reports from the program, most recently in February 2021. The program is intended to provide information about the technical, consumer and energy market impacts of VPP participation in the Frequency Control Ancillary Service (**FCAS**) markets. There are seven enrolled participants in the program. Four of these operate in South Australia:

- ▶ Energy Locals (Tesla)
- ▶ AGL
- ▶ Simply Energy
- ▶ ShineHub

Exemption for enrolled participants in the AEMO VPP Demonstration Program

In November 2019, the Commission granted (and the Minister for Energy and Mining subsequently approved) an exemption, under s 80(1) of the *Electricity Act 1996*, to participants in the program from the requirement to hold an electricity generation licence covering those operations (exemption). The exemption will expire on 30 June 2021, at the same time that the AEMO Program is due to finish. A copy of the exemption (AEMO VPP Demonstration Program Exemption) is available on the licence and exemption register on the Commission's website. The exemption currently contains conditions, which, in summary, require beneficiaries of the exemption to:

- ▶ Advise the Commission if they:
 - exit the program
 - change the scope or scale of their operations
 - cause adverse impact, loss or damage to a consumer or to the distribution network, and/or
 - breach any applicable law.
- ▶ Maintain adequate and appropriate insurance.
- ▶ Provide the Commission with any information requested.

Proposal to extend and vary exemption

Noting that the operation of VPPs in the NEM is a new and developing area, stakeholder views are sought on the potential to extend the period of the exemption to the current participants of the Program for a further 12 months (until 30 June 2022) and varying it to continue coverage irrespective of the AEMO program finish date.

Stakeholder views are also sought on the potential to vary the terms of the exemption to provide appropriate regulatory protections for South Australian consumers. For example (as explained below) to base the terms of the exemption upon proposed licence conditions for VPP operators.

Reasons for proposal

The regulatory framework for VPPs is still developing and, in that context, extending the exemption may allow the development of local and national policy responses (e.g. in national laws and rules) and provide further opportunity for stakeholder comment on an appropriate licensing framework for VPP operators.

Of note, extension of the exemption will not prohibit other potential VPP operators from entering the market in South Australia. Extension of the exemption will enable those operators who enrolled in the program to continue their operations with minimal regulatory uncertainty while they undertake the process of applying to the Commission for a generation licence authorising their operations.

AEMO is currently conducting a consultation on the Amendment of the Market Ancillary Service Specification (**MASS**) and is considering the issues raised by the program as part of this consultation.

If the MASS remains unchanged, the program participants (and other VPP operators) are likely to still be eligible to operate in the slow and delayed FCAS services, and AEMO will have oversight of their operations as registered participants in the FCAS markets. If the MASS is amended to incorporate the program conditions, the program participants will be able to continue in all six FCAS contingency markets and AEMO will have oversight of them as registered participants (and of other VPP operators who are registered participants). Participants must have at least 1MW of controllable load to be registered in the contingency FCAS markets. All of the enrolled program participants meet this threshold.

Request for submissions

The Commission seek submissions from stakeholders on the following:

- ▶ Whether the exemption for enrolled program participants should be extended for a further 12-month period.
- ▶ The suitability of the proposed conditions listed below for VPP licences and for the varied exemption.

This list of conditions does not include administrative conditions (such as fees, licence term, transfer, description of plant). The list is numbered following the "standard" licence conditions for generators to allow easy reference for market participants, and deliberately omits the administrative conditions, so the numbering has some gaps.

5. Access

5.1 The **licensee** must:

- (a) in accordance with, and to the extent required by, the **Electricity Transmission Code**, grant to a **network service provider**, rights to use, or have access to, those parts of the **licensee's electricity generating plant** that are interconnected or interface with the **network service provider's** assets for the purpose of ensuring the proper integrated operation of the South Australian power system and the proper conduct of the operations authorised by the **network service provider's transmission licence** or **distribution licence**; and

- (b) in the absence of agreement as to the terms on which such rights are to be granted, comply with a determination of the **Commission** as to those terms.

6. Dispute resolution

6.1 A dispute relating to the granting of rights to use or have access to the interconnecting assets of the **licensee's electricity generating plant** referred to in clause 5 shall be resolved in accordance with any applicable **industry code** developed by the **Commission** for the resolution of disputes.

6.2 Clause 6.1 does not apply to the extent the dispute is subject to resolution in accordance with or under the **National Electricity Rules**.

7. Compliance with Codes

7.1 The **licensee** must:

- (a) comply with all applicable provisions of the **Electricity Transmission Code**, the **Electricity Distribution Code** and the **Electricity Metering Code**;
- (b) comply with all applicable provisions of any other **industry code** or **rule** made by the **Commission** from time to time; and
- (c) notify the **Commission** if it commits a material breach of the **Electricity Transmission Code**, the **Electricity Distribution Code** or the **Electricity Metering Code** within 3 days after becoming aware of that breach.

8. Safety, reliability, maintenance and technical management plan

8.1 The licensee must:

- (a) prepare, maintain and periodically revise a safety, reliability, maintenance and technical management plan dealing with matters prescribed by **regulation**;
- (b) obtain the approval of the **Technical Regulator**:
 - i. to the plan (prior to commencement of the operation of the **electricity generating plant** to which the plan relates); and
 - ii. to any revision of the plan;
- (c) comply with the plan as approved in accordance with clause 8.1(b); and

- (d) undertake audits of its compliance with the plan from time to time and report the results of those audits to the **Technical Regulator**, in the form required by the **Technical Regulator**.

9. Switching manual

9.1 The **licensee** must:

- (a) prepare and maintain an internal switching manual in accordance with the **regulations**; and
- (b) comply with any other requirements relating to switching prescribed in the **regulations**.

10. National electricity market

The **licensee** must hold and comply with the conditions of any registration required under the **National Electricity Rules** granted by **AEMO** (or the person responsible for the granting of such registrations under the **National Electricity Law** or the **National Electricity Rules**) at all times that such registration is required for the operations authorised by this licence.

11. Information to AEMO

The **licensee** must, following a request from **AEMO**, provide to **AEMO** such documents and information as **AEMO** may reasonably require for the performance of its functions.

12. System controller

The **licensee** must comply with any directions given to it by the **System Controller**.

13. Information to the Commission

13.1 The **licensee** must, from time to time, provide to the **Commission**, in a manner and form determined by the **Commission**:

- (a) details of the **licensee's** financial, technical and other capacity to continue the operations authorised by this licence; and
- (b) such other information as the **Commission** may require from time to time.

13.2 The **licensee** must notify the **Commission** of any changes to its **officers**, and (if applicable) major shareholders, within 30 days of that change.

13.3 The **licensee** must report to the **Commission**, by 31 August each year, on the number of generation plant, and installed capacity of that

generating plant, forming the authorised operations as at 30 June of the preceding financial year.

14. Operational and compliance audits

14.1 The **licensee** must undertake periodic audits of the operations authorised by this licence and of its compliance with its obligations under this licence and any applicable **industry codes** in accordance with the requirements of any applicable guideline issued by the **Commission** for this purpose.

14.2 The **licensee** must also conduct any further audits at a frequency and in manner approved by the **Commission**.

14.3 The results of audits conducted under this clause must be reported to the **Commission** in a manner approved by the **Commission**.

14.4 The **Commission** may require the licensee to use an independent expert approved by the **Commission** to conduct audits under this clause.

14.5 The **Commission** may require the costs of using an independent expert approved by the **Commission** to conduct audits under this clause to be met by the **licensee**.

15. Confidentiality

The **licensee** must, unless otherwise required by law, this licence, an **industry code**, or the **National Electricity Rules**, comply with any **rules** made by the **Commission** from time to time relating to the use of information acquired by the **licensee** in the course of operating the business authorised by this licence.

16. Community service

The **licensee** must comply with the requirements of any scheme approved and funded by the Minister for the provision by the State of customer concessions or the performance of community service obligations by the **electricity entities**.

17. Compatibility

The **licensee** must not do anything to its **electricity generating plant** (which includes any **electricity**

generating plant under its operational control) which affects the compatibility of its electricity generating plant (or any electricity generating plant under its operational control) with any **distribution network** or **transmission network** so as to prejudice public safety, quality of supply or the security of the power system of which its **electricity generating plant** (or any electricity generating plant under its operational control) forms a part.

18. Insurance

18.1 The **licensee** must undertake and maintain during the term of this licence insurance against liability for causing bush fires.

18.2 The **licensee** must provide to the **Commission** a certificate of the insurer or the insurance broker by whom the insurance was arranged (in a form acceptable to the **Commission**) to the effect that such insurance is adequate and appropriate, given the nature of the **licensee's** activities conducted under this licence and the risks associated with those activities.

19. Compliance with laws

The **licensee** must comply with all applicable laws including, but not limited to, any technical or safety requirements or standards contained in regulations made under the **Act**.

22. Information to Network Service Provider

The **licensee** must, following a request from a **Network Service Provider** provide such documents and information as the **Network Services Provider** may reasonably require for the performance of its functions, in a format and within a timeframe reasonably required by the **Network Services Provider**.

The Essential Services Commission is an independent statutory authority with functions in a range of essential services including water, sewerage, electricity, gas, rail and maritime services, and also has a general advisory function on economic matters. For more information, visit www.escosa.sa.gov.au.

Essential Services Commission

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