



Application form for the issue of an Electricity Generation Licence

by the Essential Services Commission of SA under the
Electricity Act 1996

August 2017

Enquiries concerning this application form should be addressed to:

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Table of contents

Licence requirements and conditions	1
Generation operations which require a licence	1
Mandatory licence conditions	1
Additional technical licence conditions	1
Annual licence fees	2
Use of this form and applicant's responsibilities	3
Application fees	3
How to lodge an application	3
Consultation and Confidentiality	3
Further information	4
Licence Application Form	1
1 The Applicant	1
1.1 Identity of Applicant	1
1.2 Legal Identity of Applicant	1
1.3 Address and Contact Details of Applicant	1
1.4 Contact Person on behalf of Applicant	1
1.5 Contact Person for Licence Fees	1
1.6 Diagram of Corporate or other Structure	2
2 The Licence	3
2.1 Date from which Licence is sought	3
2.2 Nature and scope of operations for which Licence is sought	3
3 Suitability of applicant to hold a licence	4
3.1 Standard of honesty and integrity shown by Applicant	4
3.2 Standard of honesty and integrity shown by Officers and major shareholders of Applicant	5
3.3 Names and addresses of the Officers of Applicant	5
3.4 Names and addresses of major shareholders of Applicant	6
3.5 Details of the group members	6
3.6 Additional information	6
3.7 Financial resources available to the Applicant	7
3.8 Additional Details of Structure of Applicant	7
3.9 Human resources available to the Applicant	8
3.10 Technical resources available to the Applicant	9
3.11 Quality of Electricity Produced/Connection Agreement	10
3.12 Risk Management	10
3.13 Development Act Approval	10
3.14 Registration with AEMO	11
3.15 Licences held by the Applicant in other Australian jurisdictions	11
3.16 Previous unsuccessful licence applications in other Australian jurisdictions	11
3.17 Licences held by Associates of the Applicant	11
3.18 Compliance Plans	12

3.19 Additional Information	12
4 Factors specified in the Essential Services Commission Act 2002	13
5 Application fees	13
6 Declaration	14
Attachment 1	15
2017 model licence conditions for new generators	15
Interpretation of this schedule	15
Disturbance ride through capability	15
Voltage control capability	18
System strength	18
Active power control capability	19
System restoration	20

Licence requirements and conditions

It is essential that licence applicants read the Essential Services Commission's (**Commission**) Advisory Bulletin No 4 – "*Licensing Arrangements for the Electricity and Gas Supply Industries*" before they fill out this form. This Bulletin is available on the Commission website www.escosa.sa.gov.au under electricity/licensing.

Generation operations which require a licence

Section 15(2)(a) of the *Electricity Act 1996* (**Act**)¹ is explicit in that it requires a person that carries on the operation of the generation of electricity to hold a licence. This requirement applies to all generators with the exception of a generator that can rely on:

- (1) one of the statutory exemptions specified in the Electricity (General) Regulations 1997 (**Regulations**) outlined below;
- (2) an individual exemption issued by the Commission (with the approval of the Minister) pursuant to section 80(1) of the Act; or
- (3) an exemption made by Governor under a regulation pursuant to section 98(2)(e) of the Act.

Pursuant to Regulations 6(1) and (2), the following generators are exempt from the requirement to hold a generation licence:

- ▶ a generator whose generating plant has a rated nameplate output of 100kVA or less;
- ▶ a generator that does not supply electricity for reward to or by means of a transmission or distribution network;
- ▶ a generator that generates electricity for the sole consumption of that generator or a designated body (such bodies must be designated by the Minister²); or
- ▶ a generator that generates electricity for a person at a premises occupied or used by the person as a tenant or licensee (whether directly or indirectly) of the generator (or a designated body) where that person is not charged for the supply of electricity except by a licensed retailer/generator or as an unspecified part of rent or charges for the occupation or use of the premises.

It is important for generators (or proposed generators) to carefully consider whether they can rely on a statutory exemption from the requirement to be licensed. If the reliance on a statutory exemption is queried by the Commission, the onus to provide evidence that a particular exemption can be relied upon is on the relevant generator.

In addition, in the event that the operations of a generator change so that it can no longer rely on one of the three exemptions specified above, it will need to apply to the Commission for a generation licence immediately in order to continue those operations.

Mandatory licence conditions

Sections 21(1) and 22 of the Act requires the Commission to place certain mandatory conditions in generation licences. The Commission strongly recommends that applicants review these mandatory conditions. Applicants must be familiar with the relevant conditions and confident that they can comply with the conditions.

Additional technical licence conditions

Additional technical licence conditions apply to all new electricity generators seeking to connect to the South Australian power system. Applicants for a generation licence should familiarise

¹ Available at <https://www.legislation.sa.gov.au/LZ/C/A/ELECTRICITY%20ACT%201996.aspx>

² To date, the Minister for Energy and Resources has not designated any bodies for the purposes of Regulations 6(1).

themselves with the Commission's Inquiry into the licensing arrangements for generators in South Australia final report, available on the Commissions website.³

Model licence conditions reflecting the Inquiry findings and conclusions have been developed and are available in Appendix 1. The model conditions will be applicable to all new applications, having regard to advice from the Australian Energy Market Operator (**AEMO**) on the specific circumstances of individual applications received.

Depending on the specific characteristics of a given generation project, the model conditions may be varied to the degree necessary to ensure that South Australian consumers' long-term interests with respect to the price, quality and reliability of electricity services are protected.

Annual licence fees

Holding a licence incurs annual licence fees. The licence fees determined by the Minister for Resources and Energy are administered by the Commission. At annual intervals, the Commission, on behalf of the Minister, will send to each licensee, depending on the category within the sector, an invoice for the licence fee. Licence fees are to be paid on receipt of an invoice via one of the payment options set out in the invoice.

The initial licence will not be issued until the first annual licence fee (or approved licence fee instalment) has been paid.

³ Refer: <http://www.escosa.sa.gov.au/projects-and-publications/projects/inquiries/inquiry-into-licensing-arrangements-under-the-electricity-act-1996-for-inverter-connected-generators/inquiry-into-licensing-arrangements-under-the-electricity-act-1996-for-inverter-connected-generators>

supporting information will be made available on the Commission's website and in hard copy from the Commission's office for this purpose.

If applicants believe that they are providing confidential information when completing this form they should write "this information is confidential" after any such information. It is the applicant's responsibility to ensure this is clearly highlighted on the form. Applicants should also provide a 'non-confidential' version of the form capable of publication on the Commission's website.

The Commission will use information supplied in applications and in support of applications in accordance with the requirements of Part 5 of the Essential Services Commission Act 2002. Applicants claiming confidentiality are encouraged to familiarise themselves with Part 5. Applicants should note that the Commission may disclose confidential information in some circumstances.

Further information

Applicants should note that the Commission may ask applicants who have submitted an application form to provide further information to the Commission, or to clarify the information that they have already provided if required.

Please note that, in the event that an application lacks sufficient detail and the Commission is required to request additional information from an applicant, delays in the assessment of the application may occur.

Licence Application Form

1 The Applicant

Applicants must answer all questions in this section.

1.1 Identity of Applicant

State the full name of the applicant. The applicant is the person who will be undertaking the electricity generation operations that will be the subject of the licence. Joint applicants should each complete an application form, and submit their application forms at the same time, with a covering letter explaining that a joint application is being made.

Name: Vicinity Energy Services Pty Ltd

Vicinity Energy Services Pty Ltd (VESCo), a wholly-owned subsidiary of the VCX Group (through Vicinity Limited)

Vicinity Centres (VCX Group) (ASX: VCX) is a stapled group comprising Vicinity Limited (the Company) and Vicinity Centres Trust (the Trust). Whilst they are separate entities, the Stapling Deed entered into by the Company and the Trust ensures that shares in the Company and units in the Trust are stapled together and are traded collectively on the Australian Security Exchange (ASX) under the code VCX.

1.2 Legal Identity of Applicant

Provide information about the applicant, (i.e. whether the applicant is a natural person, private limited company or partnership, etc). If the applicant is a body corporate, please also state the jurisdiction in which the applicant is registered, and the applicant's ABN/ACN.

Vicinity Energy Services Pty Ltd

ABN 43 128 976 787

ACN 128 976 787

1.3 Address and Contact Details of Applicant

Business Address:

Chadstone Tower One, Level 4,

1341 Dandenong Road, Chadstone

Victoria, 3148

Postal Address (if different to Business Address): As above.

Telephone: (03) 7001 4000

E-mail: vicinity.energy@vicinity.com.au

1.4 Contact Person on behalf of Applicant

The full name, title and contact details of a person to whom the Commission can direct enquiries and correspondence about the application.

Full Name: Patrick Greene
Title: Director, The Energy Project
Business Address: Level 1, 85 Halifax St, Adelaide, SA, 5000
Postal Address (if different to Business Address): As above
Telephone: 0430 494 295
E-mail: Patrick.Greene@energyproject.com.au

1.5 Contact Person for Licence Fees

The full name and/or title of the person to whom the Commission can direct enquiries and correspondence about licence fees.

Full Name: Nick Irvine
Title: General Manager Alternative Income & Strategic Programs, Vicinity
Business Address: Level 4, Chadstone Tower One,
1341 Dandenong Road, Chadstone Victoria, 3148
Postal Address (if different to Business Address): As above
Telephone: 03 7001 4484
E-mail: nick.irvine@vicinity.com.au

1.6 Diagram of Corporate or other Structure

Please attach with this application form details of the corporate or other structure, including details of any related companies within the meaning of the Corporations Act 2001; and a diagram of the organisational chart, including composition of the board, management and other key personnel responsible for the key functions of the business.

Vicinity Centres (VCX Group) (ASX: VCX) is a stapled group comprising Vicinity Limited (the Company) and Vicinity Centres Trust (the Trust). Whilst they are separate entities, the Stapling Deed entered into by the Company and the Trust ensures that shares in the Company and units in the Trust are stapled together and are traded collectively on the Australian Security Exchange (ASX) under the code VCX.

Vicinity Energy Services Pty Ltd (VESCO), a wholly-owned subsidiary of the VCX Group (through Vicinity Limited) and has been set up to own and manage the VCX Group's solar operations across its portfolio of shopping centres. Centralised ownership and management allows for economies of scale in the administration and operation of solar assets. Accordingly, all the relevant accreditations and licences to operate a solar facility will be held by the Applicant.

Details of Vicinity Limited board and key management are noted on its website at

www.vicinity.com.au/about-us/our-board The key entities within the VCX Group relevant to the operation of solar energy facilities as described above is attached in **Appendix 1.6**

2 The Licence

Applicants must answer all questions in this section.

2.1 Date from which Licence is sought

Applicants should usually allow the Commission a minimum of 12 weeks to consider an application, as a public consultation period of at least four weeks forms part of the Commission's consideration of licence applications. If the applicant seeks to have the licence issued by a certain date, provide this date. Please note that the Commission does not undertake to issue the licence by this date.

Vicinity requests that the Commission issue a licence as soon as practicable. We acknowledge that this is likely to be following the Commissioners meeting in April 2020.

2.2 Nature and scope of operations for which Licence is sought

Applicants for a generation licence must state the location of the generation plant, the expected name plate capacity of the generation plant, the type of generation and fuel used and some details about how the generator is to be connected to the network. Applicants for a wind generation licence must attach a map showing the location of the wind turbines.

Vicinity Energy Services Pty Ltd is seeking a licence to operate a portfolio of 3 Solar PV generation systems located at:

- 1) Colonnades Shopping Centre
- 2) Elizabeth Shopping Centre
- 3) Castle Plaza Shopping Centre

Details of each generator are provided below:

Name	Colonnades	Elizabeth	Castle Plaza
Location	54 Beach Rd, Noarlunga, SA, 5168	50 Elizabeth Way, Elizabeth, SA, 5112	990-1016 South Rd, Edwardstown, SA, 5039
Generator type	Solar PV	Solar PV	Solar PV + Lithium Ion battery
Size (MWp) AC	1.325	4.633	2.127 (Solar) .261 (Battery)
Connection type	Connected to SAPN network at 11kV via the site's Main Switchboards MSB E2 & MSB ME.	Connected to SAPN network at 11kV via customer owned HV ring main (operated by Nielson Electrical)	Connected to SAPN network at 11kV via customer owned HV ring main (operated by Nielson Electrical)

Further details of the generator's connection to the network, including Single Line Diagrams are provided in Appendix 2.2

3 Suitability of applicant to hold a licence

Applicants must answer all questions in this section.

3.1 Standard of honesty and integrity shown by Applicant

In deciding whether the applicant is a suitable person to hold a licence, the Commission may:

- ▶ consider the applicant's previous commercial and other dealings, and
- ▶ the standard of honesty and integrity shown in those dealings.

Please provide information that will assist the Commission in its consideration of this matter. If the applicant:

- ▶ has been found guilty of any criminal offence,
- ▶ has been successfully prosecuted under any Territory, State or Commonwealth legislation (such as the Australian Securities and Investments Commission Act 2001 or the Competition and Consumer Act 2010) or
- ▶ has been the subject of disciplinary action,
- ▶ has been the subject of any past or present administrative or legal actions in relation to an authorisation, authority, or licence in any industry,

details of such matters must be disclosed. Failure to disclose such information or misrepresent any matter relevant to such information may result in the cancellation of a licence.

The Commission may use the service of an external expert to assist with the assessment of the applicant's standard of honesty and integrity.

Vicinity Energy Pty Ltd (the Applicant) is part of the stapled ASX listed Vicinity Group(ASX:VCX), a company with \$22 billion in assets.

The applicant has not been found guilty of any criminal offence, been successfully prosecuted under any state, territory or Commonwealth legislation, or been the subject of disciplinary or legal actions

3.2 Standard of honesty and integrity shown by Officers and major shareholders of Applicant

Applicants should address responses to this question in the same manner as 3.1 above except here it relates to officers and major shareholders of the applicant.

Please also supply details of any policies and procedures addressing the probity and competence of officers and other key management staff.

Neither the applicant nor its officers have been found guilty, or prosecuted, or been the subject of disciplinary or legal actions.

Vicinity is committed to the highest level of integrity and ethical standards in all its business practices. All Directors, Executive Committee members, Employees and Contractors directly engaged by Vicinity, are bound by Vicinity's Code of Conduct which requires all team members to act lawfully and honestly at all times, and comply with all relevant laws and regulations.

Vicinity's code of conduct provides guidance on Business Integrity, Conflicts of Interest, Disclosure, and Ethical Behaviour. The code, and other relevant corporate policies and charters can be accessed here:

<https://www.vicinity.com.au/about-us/corporate-governance>

3.3 Names and addresses of the Officers of Applicant

State the names and addresses of the officers of the applicant. "Officers" of the applicant include the applicant's directors and secretary, and other persons who make or participate in making decisions that affect a substantial part of the business of the applicant.

Full Name: Carolyn Reynolds

Office Held: Director

Full Name: Grant Kelley

Office Held: Director

Full Name: Nicholas Schiffer

Office Held: Director

Full Name: Rohan Abeyewardene

Office Held: Secretary

Full Name: Kate Williams

Office Held: Secretary

3.4 Names and addresses of major shareholders of Applicant

State the full names and addresses of the major shareholders of the applicant

Name: **Vicinity Limited** (100% shareholding)

Date of Birth (if applicable): N/A Office Held (if applicable): N/A

Address: Chadstone Tower One, Level 4 1341 Dandenong Road, Chadstone

State: Victoria

Post Code: 3148

3.5 Details of the group members

This is information about entities controlled by the applicant, or by the ultimate parent entity of the applicant (if applicable).

See attached Appendix 1 and details provided at section 1.6

3.6 Additional information

Please answer the following questions.

- ▶ Is the applicant a resident of, or does it have permanent establishment in, Australia? Where the answer to this question is no, please provide further detail.

YES

- ▶ Is the applicant under external administration (as defined in the Corporations Act 2001) or under a similar form of administration under any laws applicable to it in any jurisdiction? Where the answer to this question is yes, please provide further detail.

NO

- ▶ Is the applicant immune from suit in respect of the obligations under the Electricity Act 1996? Where the answer to this question is yes, please provide further detail.

NO

- ▶ Is the applicant capable of being sued in its own name in a court of Australia? Where the answer to this question is no, please provide further detail.

YES

3.7 Financial resources available to the Applicant

Provide information about the financial resources available to the applicant. If the applicant is a company, please also enclose:

- ▶ copies of all audited profit and loss statements and balance sheets for the last three financial years (including all notes), and
- ▶ director's declaration that the financial statements comply with accounting standards, give a true and fair view, have been made in accordance with the Corporations Act and that there are reasonable grounds to believe the company/entity will be able to pay its debts as and when they fall due; and
- ▶ the director's report and the audit opinion.

If the applicant is a subsidiary company, please also provide:

- ▶ copies of all audited profit and loss statements and balance sheets of the applicant's parent company for up to the last three financial years.

The applicant should also submit copies of:

- ▶ its business plans including at least strategic direction and objectives, identified opportunities in the market place and forecast results; and
- ▶ evidence of capital and liquidity support in place, including any bank or cross guarantees, to support the business and evidence of negotiations with the network service provider concerning credit support arrangements.

The applicant is not required to prepare financial statements as it does not meet Corporation Acts threshold. As outlined above the applicant is a wholly owned subsidiary of the Vicinity Group. Therefore summary financial highlights of the Vicinity Group at 31 December 2018 (as per the financial statements released on the ASX on 15 February 2019) have been provided below:

- Net assets of \$11,930.9 million
- Total available finance facilities of \$5,371.7 million of which \$1,291.5 million remains undrawn;
- A weighted average finance facility expiry of 4.26 years;
- Interest cover ratio of 4.6 times;
- Cash flow for 6 months of operations of \$341.3 million;
- Funds from operations (the metric used for operational profit) was \$349.5 million (statutory net profit was \$235.3 million).

Copies of the 3 last profit and loss and balance sheets are **attached in Appendix 3.7**

Our strategic direction and objectives are included in our annual report 2018 (page 36)

3.8 Additional Details of Structure of Applicant

If the applicant is part of a group of related companies, and/or party to a partnership, joint venture or alliance agreement with another company, please provide:

- ▶ contractual arrangements (e.g. alliance contracts, associate contracts, establishment contracts) that define relationships within the group – including shared resources, guarantees, revenue flows, obligations and or responsibilities.

The applicant is a wholly owned subsidiary of Vicinity Ltd.

Vicinity Energy Pty Ltd, is a company specially created to develop, own and manage renewable energy and other energy assets for the Vicinity Group (refer Section 1.6 above for further information on Vicinity Centres).

3.9 Human resources available to the Applicant

Provide information about the human resources available to the applicant. This includes:

- ▶ the experience and qualifications of those employees outlined in the organisational chart (see point 1.6); and
- ▶ if the applicant will employ contractor/s to assist with the licensed operations, the name of that contractor/s, details about the experience of the contractor/s in such operations and details of the processes in place to ensure the contractor/s complies with the regulatory obligations imposed by the licence.

Vicinity Energy Pty Ltd has assembled an experienced team with significant experience in the development, management and operation of renewable energy assets.

Full time employees in key energy asset management positions include:

- **Mr Igor Sekatski, National Manager Renewable Projects**
 - 15+ years of project and program management in the renewable energy industry including wind and solar assets
 - Bachelor of International Business, Masters of Accounting.
- **Mr Patrick Healy, Senior Project Manager**
 - 15 years of electrical experience
 - Licenced electrician
 - CEC Accredited Solar installer
- **Mr Carlos Trench, Strategic Delivery Manager**
 - 10+ years of engineering project management experience
 - Bachelor of Chemical Engineering and Master of Science
 - Member of Engineers Australia
- **Mr Stuart MacDonald, Project Manager**
 - Licenced electrician

The above team is supported by the corporate functions (Finance, Risk & Compliance, Legal, P&C, etc) of Vicinity Centres.

The South Australian solar projects were designed and constructed by Energy Solutions Pty Ltd (trading as BEON Energy Solutions) under a Design and Construct AS4300 contract.

BEON are contracted for a Performance Warranty of 2 years post completion covering the Operations and Maintenance of the installed assets. There is an option for Vicinity to extend this for a further 3 years.

Vicinity has also engaged:

- Montlaur (CBRE) Project Services Pty Ltd as a project superintendent under the contract to ensure compliance with Vicinity's project governance requirements.
- Verdia Pty Ltd are engaged as Owners Engineer.
- Nilsen (SA) Pty Ltd are retained by Vicinity as HV/MV asset operator (under a national agreement).

The applicant plans to use the above Operation and Maintenance period to establish its own asset management function. The applicant structures all contracts so that the obligations of the licence are

made aware to all the subcontractors

Please refer to 3.8 in addition please see attached the applicant's commercial management team organisational structure and relationship with Beon Energy Solutions.

3.10 Technical resources available to the Applicant

Applicants for a generation licence are asked to provide details about the availability of technical resources to be used in carrying out the operations for which a licence is sought. The information should include details about the technically qualified staff available to the applicant and (if relevant) details of experience gained in similar operations.

Where applicants are relying on a third party to provide staff and resources to meet the technical requirements of the generation licence, please provide:

- ▶ a list of all functions and activities being proposed to outsource;
- ▶ details of any formal agreement/s to provide services, including confirmation that the third party possess relevant technical competencies to conduct the proposed activities;
- ▶ a summary of the third party's technical capacity to meet relevant obligations, including relevant accreditations; and
- ▶ a summary of the third party's experience and knowledge in the relevant area.

The applicant has established a project management team which includes licenced electricians and CEC accredited installers that are capable of operating and maintaining the generation assets that are subject to this licence application. Whilst Vicinity is capable of operating these assets in-house, it has also engaged external consultants and contractors to assist in the management of the project and the ongoing operations and maintenance activities. These external contractors include:

- Beon Energy Solutions: will manage the delivery, initial operations and maintenance of the plant. Beon is a leader in the deployment of large-scale renewable energy and infrastructure projects, with extensive expertise in design, construction and maintenance and have complete major works of installed solar capacity such as 20 MW Hughengren , 112MW Karadoc MW, 106 MW Yatpool and 112 MW Bomen solar farms across Australia.
- AZZO: who specialize in Energy Management and Electrical Engineering. AZZO's multi-national team is made up of electrical engineers holding Certified Energy Management (CEM) qualifications, software developers and qualified electricians
- Montlaur Project Services engaged as a project superintendent under design and construct AS4300 modified contract
- Verdia as a technical consultant and owner engineer
- IT network is provided by Optus under a Managed Network framework providing assurance of network integrity required to operate and manage generation assets
- Nilsen as HV/MV asset operator (under a national agreement)
- PlusES as Vicinity's national provider of Direct Metering services

3.11 Quality of Electricity Produced/Connection Agreement

The Commission may not issue a generation licence unless it is satisfied that the generating plant (or proposed generating plant) will generate electricity of the appropriate quality for the relevant transmission or distribution network. The Commission will be satisfied that the electricity is of an appropriate quality if the applicant has entered into a connection agreement which meets the Commission's technical requirements with the licensed operator of the relevant transmission or distribution network. Applicants are therefore required to submit a copy of such a connection agreement.

Vicinity will operate each of the generators in accordance with SA Power Networks connection agreements. Each of the generators has passed SAPN's witness testing and has secondary protection relays and SAPN controlled SCADA connections in place to ensure that the systems only operate within agreed parameters.

Connection offers are provided in **Appendix 3.11**

3.12 Risk Management

Provide confirmation and reasonable evidence that the applicant's management has identified the risks associated with electricity operations and has established, utilises and relies upon risk management systems and processes which are adequate, accurate and current to address those risks. A copy of the applicant's risk management strategy should be submitted.

Vicinity Energy Services Pty Ltd (VESCo), through its parent, Vicinity Limited, has a structured and comprehensive approach to managing risk through its risk management framework. This framework is [consistent with AS/NZS ISO 31000:2018].

Vicinity's risk management policy is available here:

<http://sustainability.vicinity.com.au/governance/ethics-and-risk-management/learn-more/>

Risks relating to the solar generation and battery storage systems are actively managed by VESCo's Integrated Energy and Commercial Management Team who have oversight of the design, installation, operation and maintenance of the generators. Risk management controls that have been put in place to date include but are not limited to:

- **Licensing and accreditation**

The generator has been designed by a CEC accredited designer and installed by a CEC accredited installer and licenced electrician. Licences of all relevant personnel have been validated by VESCo.

- **Commissioning**

The generator has been commissioned by a suitably qualified CEC accredited electrician and a quality assurance audit was completed by Verdia¹, the owners' technical consultant, at the completion of the installation.

Furthermore, injection testing has been completed and the generator's protection devices and relay settings have been witness tested by SAPN engineers prior to commissioning.

- **Grid connection and protection**

The generator is connected to the distribution grid in accordance with SAPN's connection agreement.

The generator is fitted with a protection relay and SAPN SCADA GDL system that ensures SAPN can limit the generator export in response to network faults and other events to protect SAPN's distribution network.

- **Operation and Maintenance**

Relevant personnel onsite have been trained in the safe shutdown of the system in accordance with the Operation and Maintenance (O+M) manual.

A Safety Reliability Maintenance Technical Management Plan (SRMTMP) will be developed and lodged with the Office of the Technical Regulator

The system is actively monitored by Vicinity via its energy management portal and by SAPN via its SCADA connection.

Access to all electrical components is restricted to authorised personnel who have been properly inducted onto the site.

Vicinity carries out maintenance checks in accordance with the schedule set out in the generators O+M manual.

Electronic and physical access controls are in place to ensure protection settings are not changed by unauthorised personnel and without the express consent of SAPN

Vicinity manages generator asset maintenance, and regulatory compliance, using the industry leading FSI compliance platform. FSI is a facilities management and compliance management platform that provides a consistent view of all assets under operation, and the regulatory and compliance regimes that they are subject to. It allows changes in legislation to be tracked, as well as provides a log of any changes made to the generator itself.

3.13 Development Act Approval

Please advise if the applicant has or is applying for approval under the Development Act 1993 (SA). If so, provide details, including the date on which approval was or will be granted.

Development approval has been received with the approval date of 14/08/2018 (see attached)

3.14 Registration with AEMO

Please advise if the applicant will apply to register with AEMO. If so, provide details. Applicants for a wind generation licence should note that registration as a semi-scheduled market participant is required for all new generators and all expansions to existing wind generation plant.

Not Applicable as each Generator is under the required threshold

3.15 Licences held by the Applicant in other Australian jurisdictions.

If the applicant holds, or has previously held, electricity and/or gas licences in other Australian jurisdictions please provide details. If a licence previously held has been suspended or cancelled, please provide details.

Vicinity has pre-existing retailer exemption from the AER. These can be found here.

<https://www.aer.gov.au/retail-markets/retail-exemptions/public-register-of-retail-exemptions>

3.16 Previous unsuccessful licence applications in other Australian jurisdictions

Please state whether the applicant has applied for an electricity or gas licence in another Australian jurisdiction and not been issued with a licence, and provide details if relevant.

N/A

3.17 Licences held by Associates of the Applicant

If an associate of the applicant (within the meaning of the Corporations Act) holds an electricity or gas licence in South Australia or in other Australian jurisdictions, please provide details.

N/A

3.18 Compliance Plans

Applicants are required to submit a copy of their Compliance Plan which demonstrates how the compliance systems the applicant has (or will have) in place will ensure compliance with all of the applicable regulatory obligations imposed by the relevant licence.

Vicinity is developing an SRMTMP for each of the generators that outlines how it intends to ensure compliance with all applicable regulatory obligations. This will be lodged with the office of the Technical Regulator in due course.

3.19 Additional Information

The Commission encourages applicants to provide any additional information they consider would be of assistance in supporting the application. Please provide below.

4 Factors specified in the Essential Services Commission Act 2002

In considering a licence application, the Commission must have as its primary objective protection of the long term interests of consumers with respect to the price, quality and reliability of electricity supply, and must also have regard to the need to:

- (a) promote competitive and fair market conduct;
- (b) prevent misuse of monopoly or market power;
- (c) facilitate entry into relevant markets;
- (d) promote economic efficiency;
- (e) ensure consumers benefit from competition and efficiency;
- (f) facilitate maintenance of the financial viability of regulated industries and the incentive for long term investment;
- (g) promote consistency in regulation with other jurisdictions.

If the applicant believes that information about their application would assist the Commission in its consideration of these factors, the applicant should provide such information below.

5 Application fees

Applicants for a licence must pay to the Commission an application fee fixed by the Minister for Energy from time to time. This fee is presently set at \$1,000 per licence. Please enclose this fee with the application. An application cannot be considered until this fee has been received and cannot be refunded.

Attachment 1

2017 model licence conditions for new generators

Interpretation of this schedule

1. Interpretation

- 1.1. Terms used in this schedule and also in the National Electricity Rules (NER) have the same meaning in this schedule as they have in those rules (unless otherwise specified or unless the context otherwise requires).

- 1.2. For the purposes of this schedule, the term:

Commission - means the Essential Services Commission, established under the Essential Services Commission Act 2002.

continuous uninterrupted operation means that, for voltage disturbances within the continuous operating range (that is, connection point voltage fluctuating within 90 percent and 110 percent of normal voltage), active power must be maintained (unless there has been a change in the intermittent power source) and reactive power must be managed to meet voltage control requirements.

Disturbance ride through capability

2. Disturbance ride through capability – general requirements

- 2.1. The non-synchronous generating system must meet the following requirements:
- (a) The low voltage ride-through activation threshold (LVRT), as measured at the low voltage (LV) terminals of the generating units and dynamic reactive support plant (as applicable), must not be less than 85 percent of nominal voltage.
 - (b) The generating system must maintain continuous uninterrupted operation for voltage disturbances as specified in clauses 3, 7 and 8.
 - (c) Where LVRT and high voltage ride-through (HVRT) requirements in the NER are specified in respect of the generating system's connection point, the withstand capability of individual generating units is to be determined at the LV side of the generating unit's transformer. All individual generating units must remain connected for connection point voltages within the LVRT/HVRT withstand requirements, irrespective of the generating system's transformer tap position.

3. Disturbance ride-through (reactive current injection)

- 3.1. The generating system must supply additional capacitive reactive current (reactive current injection) of up to 4 percent of the maximum continuous current of the generating system (in the absence of a disturbance) for each 1 percent reduction of connection point voltage below 90 percent of normal voltage, as shown in Table 1. This requirement applies at the LV terminals of the generating units and dynamic reactive support plant (as applicable) for power system disturbances resulting in a voltage reduction of up to 100 percent of normal voltage at the connection point.
- 3.2. The generating system must supply additional inductive reactive current (reactive current absorption) of up to 6 percent of the maximum continuous current of the generating system (in the absence of a disturbance) for each 1 percent increase in connection point voltage

6 Declaration

All information in this application for the issue of a licence to authorise electricity generation operations in the electricity supply industry in South Australia must be verified by a Statutory Declaration of the applicant, in accordance with the provisions of the *Oaths Act 1936* (SA)⁴, stating that the information contained in the application is true and correct to the best of the applicant's knowledge, information and belief.

Where the applicant is a body corporate, evidence of the relevant authority of the declarant to sign on behalf of the body corporate must also be provided to the Commission.⁵

Statutory Declaration

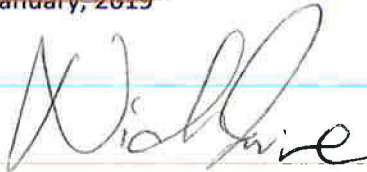
I Nick Irvine, General Manager Alternative Income and Strategic Programs of Vicinity Energy Services Pty Ltd (AC 128 976 787)

do solemnly and sincerely declare that the information contained in this Application for the issue of a licence to authorise electricity generation operations in the electricity supply industry in South Australia is true and correct to the best of my knowledge information and belief.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the *Oaths Act 1936*.

30th January, 2020
Date: ~~24th January, 2019~~

Signature



under power of attorney dated 1 October 2015 by its duly appointed attorney and who declares that he has no notification of any revocation of such power of attorney.

(Where the applicant is a body corporate, the declaration must be made by a person authorised by body corporate to sign on its behalf)

1341 Dandenong Road
Declared at Chadstone, Vic, 3148, this day ^{30th.} ~~24th~~ of January, 2020.

Before me:...



Malwina Anna Peacock
1341 Dandenong Road, Chadstone VIC 3148
An Australian legal practitioner within the meaning of the
Legal Profession Uniform Law (Victoria)

(Signature of Justice of the Peace or other person authorised under the *Oaths Act 1936*)

⁴ or equivalent legislation in other Australian jurisdictions.

⁵ The Commission will accept a copy of a Board minute (or circulating resolution) giving approval for the declarant to sign on behalf of the applicant as evidence of the relevant authority.

above 110 percent of the normal voltage, as shown in Table 1. This requirement applies at the LV terminals of the generating units and dynamic reactive support plant (as applicable).

- 3.3. The reactive current injection must be maintained until the connection point voltage returns to within the range of 90 percent to 110 percent of normal voltage.

Table 1: Reactive current injection requirements

Reactive current response	Current injection gain (%)	Current absorption gain (%)	Minimum amount of contribution as percentage of rated current	Speed of contribution	
				Rise time (millisecond)	Settling time (millisecond)
Synchronous	4	6	250	30	N/A
Non-synchronous	4	6	100	30	60

- 3.4. The amount of reactive current injection required may be calculated using phase-to-phase, phase-to-ground, or sequence components of voltage. For the last method, the ratio of negative-sequence to positive-sequence current injection must be X.⁶
- 3.5. The generating system must comply with the following response characteristics for reactive current injection:
- (a) A rise time no greater than 30 milliseconds and a settling time no greater than 60 milliseconds applies to reactive current injection requirements.⁷
 - (b) The reactive current injection requirements described above apply for all pre-disturbance reactive power control modes (voltage control, power factor control and reactive power control).⁸
 - (c) The reactive current response must be adequately damped as defined in the NER.
 - (d) Upon occurrence of a fault, reactive power consumption must not exceed 5 percent of maximum continuous rated current of the generating system and must be limited to the rise time duration set out in Table 1.
 - (e) The post-fault reactive power contribution of the generating system must be sufficient to ensure that the connection point voltage is within the following ranges for continuous uninterrupted operation:
 - (i) voltages over 110 percent for the durations permitted under NER clause S5.1a.4;
 - (ii) 90 percent to 110 percent of normal voltage continuously;
 - (iii) 80 percent to 90 percent of normal voltage for a period of at least 10 seconds; and
 - (iv) 70 percent to 80 percent of normal voltage for a period of at least 2 seconds.

⁶ The exact ratio of negative-sequence to positive-sequence current injection will be specified by the Commission at the time the licence is issued.

⁷ The settling time requirement does not apply to synchronous generators.

⁸ This requirement does not apply to synchronous generators.

4. Disturbance ride through (active power injection requirements)

- 4.1. The generating system must be capable of restoring active power to at least 95 percent of the level existing just prior to a fault within X milliseconds after disconnection of the faulted element.⁹
- 4.2. Upon occurrence of a fault, a generating system's transient active power consumption must not exceed one power frequency cycle and must not exceed 5 percent of the maximum continuous rated current of the generating system.

5. Multiple low voltage disturbance ride-through

- 5.1. The generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant, must be capable of withstanding both of the following within a five minute interval:
- (a) Any combination of voltage disturbances causing the voltage at the respective low voltage (LV) terminals of the equipment to drop below 85 percent of the nominal voltage for a total duration of 1,500 milliseconds regardless of disturbance type, duration, and residual voltage at the generating unit's terminals. The total number of voltage disturbances for which successful ride-through is required is limited to 15. Each fault can be a solid fault resulting in 100 percent voltage drop at the connection point with duration not exceeding the longest time expected to be taken for the breaker fail protection system to clear the fault, as set out in Table S5.1a.2 of the NER.
 - (b) A single worst-case long-duration shallow voltage disturbance, causing the voltage at the connection point to drop to 70- 80 percent of the normal voltage for a total duration of 2,000 milliseconds.
- 5.2. Subject to compliance with the requirements in clause 5.1, the generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant, is not required to withstand any additional voltage variation exceeding ± 10 percent of nominal voltage experienced at the respective LV terminals within 30 minutes from the commencement of the first variation.¹⁰

6. Disturbance ride-through (high voltage disturbance ride-through)

- 6.1. The generating system must have a level of over-voltage withstand capability consistent with the levels shown in Table 2.¹¹
- 6.2. The generating system must maintain continuous uninterrupted operation for temporary over voltage durations as specified in Table 2.

Table 2: Required over voltage withstand capability

Temporary overvoltage (% of normal voltage)	110–115	>115–120	>120–125	>125–130	>130–140
Duration(s)	1,200	20	2	0.2	0.02

⁹ The exact active power recovery time will be specified by the Commission at the time the licence is issued and will be between 100 and 500 milliseconds.

¹⁰ For synchronous generators, consideration will be given to the physical limitations of the plant. This may require a variation to this condition, to be determined by Commission at the time of issuing of the licence.

¹¹ Unless otherwise specified by the Commission at the time the licence is issued.

7. Disturbance ride-through (partial load rejection)

- 7.1. The non-synchronous generating system must be capable of continuous uninterrupted operation during and following a power system load reduction of 30 percent from its pre-disturbance level or equivalent impact from separation of part of the power system in less than 10 seconds, provided that the loading level remains above minimum load.

8. Disturbance ride-through (frequency disturbance ride-through)

- 8.1. The generating system must be capable of continuous uninterrupted operation for any combination of the following rates of change of frequency:
- (a) ± 4 Hz/s for 250 milliseconds
 - (b) ± 3 Hz/s for 1 second, until such time as power system frequency breaches the extreme frequency excursion tolerance limits.¹²

9. Disturbance ride-through (voltage phase angle shift)

- 9.1. The generating system must not include any vector shift or similar relay/protective function acting upon voltage phase angle which might operate for phase angle changes less than 20 degrees.

Voltage control capability

10. Voltage control capability

- 10.1. The generating system must be capable of being controlled by a fast-acting, continuously variable, voltage control system which must be able to receive a local and remote voltage set point.
- 10.2. The generating system must be capable of operating at either a set reactive power level or a set power factor, which must be able to be set locally or remotely at anytime.
- 10.3. The voltage, power factor and reactive power control mode of the generating system must be capable of:
- (a) being overridden by the disturbance ride through requirements specified in clauses **Error! Reference source not found.** to 9 (inclusive) during power system voltage disturbances, and
 - (b) automatically reverting to power factor or reactive power mode when the disturbance has ceased.

System strength

11. System strength

- 11.1. Individual components of plant within a generating system, which includes but is not limited to generating units and dynamic reactive power plant, must be capable of operating down to the following levels at the high voltage terminals in relation to each component:
- (a) minimum short circuit ratio of 1.5, and
 - (b) minimum positive sequence X/R ratio of 2.

¹² For synchronous generators, consideration will be given to the physical limitations of the plant. This may require a variation to this condition, to be determined by the Commission at the time of issuing of the licence.

Active power control capability

12. Active power control capability

- 12.1. The generating system must be capable of automatically providing a proportional increase or decrease in active power output, in response to falling and rising power system frequency respectively.
- 12.2. To comply with clause 12.1:
 - (a) An active power response to changing power system frequency must be provided with no delay, beyond that required for stable operation, or inherent in the plant controls, once frequency leaves the deadband.
 - (b) The steady state droop setting of the active power response must be adjustable in the range 2 percent to 10 percent.
 - (c) The frequency deadband for the active power response must be adjustable in the range from 0 to +/- 1.0 Hz.
- 12.3. The generating system must be capable of sustaining a response to abnormal frequency conditions for at least 10 minutes, subject only to energy resource availability for intermittent generating systems.
- 12.4. The generating system must be capable of applying different deadband and droop settings in response to rising and falling frequency and for different levels of frequency change.

13. Active power control capability (AGC capability)

- 13.1. The generating system must have active power control capabilities that allow it to participate in existing national electricity market arrangements requiring automatic generation control (AGC).
- 13.2. At a minimum, the AGC must have the capability to:
 - (a) receive and respond to a remotely determined active power control setpoint, updated at a rate of every four seconds, transmitted to the generating system, and
 - (b) provide the following information to AEMO, upon a request from AEMO under NER clauses S5.2.6.1 or 3.8.2:
 - (i) actual active power output;
 - (ii) maximum raise limit;
 - (iii) minimum lower limit;
 - (iv) maximum raise ramp rate; and
 - (v) maximum lower ramp rate.

14. Active power control capability (rate of change of active power)

- 14.1. The generating system must be capable of limiting the rate of change of active power, both upwards and downwards. A generating system is not required to comply with a limit on the rate of reduction of active power where the reduction in active power is caused by energy resource availability for intermittent generating systems.
- 14.2. The generating system must be capable of implementing different active power rate limits for operation in the normal operating frequency band and for contingency events.
- 14.3. The generating system must be capable of setting a ramp rate limit with accuracy of within 10 percent.

15. Active power control capability

- 15.1. The generating system must have the capability to provide real-time information about its active power control settings to AEMO, including mode of operation, deadband and droop parameters and any other active power control setting that may change during real-time operation.

System restoration

16. System restoration

- 16.1. Where sufficient minimum fault level is available from online synchronous machines, the generating system must have the following capability in the event of a black system:
 - (a) the generating system must be capable of operation with auxiliary loads only for X minutes¹³ while system load is being restored, and
 - (b) the generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant (as applicable) must have the capability to provide steady-state and dynamic reactive power when operating with auxiliary loads only for X minutes while system load is being restored.¹⁴

¹³ The exact duration will be specified by the Commission at the time the licence is issued.

¹⁴ The exact duration will be specified by the Commission at the time the licence is issued.



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